

LET US ENCOMPASS THE EARTH WITH A NEW ORDER OF TIME

VOL. XI

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**M**UCH is written today about "bottlenecks" hindering production. And production is essential to defense. One potent but oftentimes overlooked bottleneck is the calendar. Lincoln's Birthday, breaking awkwardly into the week this year, emphasized this clearly.

Many vital industrial plants shut down for the week-end had to open for two days, close again one day in the middle of the week, to reopen for two days at the end of the week. The cost of this holiday to arms production in man and machine-hours must have been staggering and was entirely unnecessary. In The World Calendar, Lincoln's Birthday together with other outstanding national holidays could be observed on Monday.

A recent survey by the Bureau of Labor Statistics undertaken for the National Defense Commission found that of 394 plants engaged in vital defense orders, 68 were working seven days a week, 116 six days, 68 five and a half days, and 142 five days.

The modern industrial machine, geared to assembly line production, is absolutely dependent on the calendar. It can only function as the present imperfect calendar permits it to function. Inaccurate clocks would not be tolerated in any of our plants for a moment, yet industry must get along on an antiquated calendar adjusted to an agricultural age!

Many assembly plants now work all through the calendar week, and processes within these factories are governed by the clock. However, raw materials and parts, needed for the final assembly of the complete unit that must be delivered to the assembly plant, are oftentimes produced and manufactured outside in smaller factories governed by the calendar.

During the last World War, Daylight Saving Time (introduced as an emergency measure) adapted the day to increased production and efficiency for world agriculture and industry in a time of great need. Continued after the war it was found indispensable to modern life. It is steadily gaining in importance. The World Calendar now points the way to a much greater efficiency by stabilizing days, weeks, months and quarter-years to simplify and facilitate production in our present emergency.

# *Journal of* CALENDAR REFORM

*January, February, March  
1941*

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CHARLES C. SUTTER, Editor

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# A SEASONAL MESSAGE

By ELISABETH ACHELIS

President, The World Calendar Association

*"The time is out of joint; O cursed spite,  
That ever I was born to set it right!"*

THE above couplet expresses the despair of a sensitive Hamlet. There are hosts of people, however, who vigorously deny this outlook, and among them is The World Calendar Association. Time is literally our calendar and we do realize that our Time, the calendar, is badly out of joint. There is no question about it. Years are always different so that days and dates never agree, quarter and half-year divisions are unequal, and months are so irregular in length that they can only be remembered by a silly little nursery rhyme. Months, too, may have four or five Sundays, Mondays, or Tuesdays, and weeks run in and out of the month in a most haphazard manner. Nothing fits in our calendar; it is burdened with confusion and discord.

To set our Time aright, then, is really a great privilege and a needed and important part in the vast reconstruction which is facing the world today. Let us with faith and determination change the couplet to read:

*Our time is out of joint; but O delight,  
That we are born **this age** to set it right!*

For to right Time is our unusual opportunity. And yet this righting of Time is so simple and easy that it is surprising it has been delayed for so long.

Time, in the new World Calendar, requires only slight change. The familiar 12-month year is kept as the number 12 is easily divided into equal quarters and half-years. The equal quarter-years of 91 days or 13 weeks or 3 months (these last arranged in an orderly variety of 31, 30, 30 days each) are identical, and the calendar-years are therefore ever orderly and dependable.

This resulting 364-day year is one day short, however, if our calendar is to keep step with the seasons. The essential 365th day, which seals the calendar stamping it as finished, is therefore placed immediately after Saturday, December 30, on an extra Saturday (December 31 or Y) and becomes the closing day of the year. It is appropriately called Year-End Day and designed as a World Holiday—one upon which all nations, peoples, races and religions may join in bidding farewell to the completed old year and in preparing for the new one which opens with the following day, Sunday, January 1. In this improved calendar every Sunday, January 1, heralds the new year throughout the world. And the 366th Leap-Year Day

observed in leap years follows June 30, in midsummer. This is another extra Saturday—a World Holiday—observed by all peoples and nations in a spirit of friendship and good will. Our calendar thus becomes a harmonious system of Time.

In this age where exist so much tragedy and destruction, is it not our bounden duty to overcome them by wholesome and salutary measures? In Julius Caesar's day, war and conquest dominated many of his thoughts and acts, yet it is the Julian calendar reform which is his most enduring mark on history.

The Gregorian period was full of political and social disruptions, but here, too, Pope Gregory XIII's memory survives through his Gregorian calendar reform. Thus it is reasonable to assume that, in this momentous period of history where war and travail afflict the world, our generation and fifth decade of the Twentieth Century may likewise be remembered in the future as having established the new World Calendar of order, harmony, balance and stability. It is a calendar wherein all the component parts achieve perfect freedom with order. Only thus can a harmonious unity result, and happy are all those who will have actively contributed toward its adoption.

Accepting the survival of The World Calendar as true, then, when present conflicts and difficulties shall have long disappeared, should we not all fully cooperate to bring about this wise calendar change? We are told by Anne Morrow Lindbergh in her recent book, *The Wave of The Future*, that "Change is the very essence of living matter. . . . For only in growth, reform, and change, paradoxically enough, is true security to be found." And, may I add, by moving forward with change, mankind will ever expand to better ways of living, necessary for a better world.

Obviously the best transition period to make this change is when the old and new calendars meet on one and the same day and date. This happens rather infrequently. Fortunately for us, such a coincidental date is Saturday, December 30, 1944. The following day—Sunday, December 31, in the old calendar—would become the new World Holiday in the new calendar, that extra Saturday Year-End Day, and the new year in The World Calendar would begin on Sunday, January 1, 1945.

Calendar reforms in the past were adopted in the Eastern Hemisphere. With war clouds hanging heavily over it, however, the Western Hemisphere becomes the logical place and Washington, D. C., the city where an International Conference could assemble in 1942 (preferably not later than 1943), to prepare nations and peoples for the actual operation of the new World Calendar by 1945. *This year of 1941 is therefore highly significant in making ready the way.*

An International Conference called by the United States of America and held in 1942 or 1943 would bring a vibrant hope to the entire world

and be a concrete proof that although war exists it does not prevent nations from coming together on matters which lie outside war's destructive sphere.

To wait for world approval and world peace before doing anything about The World Calendar would invite a deplorable delay. In the words of Samuel Johnson: "Nothing will ever be attempted if all possible objections must be first overcome."

We have a clear case of this when the American railroads inaugurated Standard Time for our clocks in November, 1883. The International Meridian Conference in Washington, D. C., followed in 1884 with efforts in the same direction. Standard Time was later adopted by other countries. Thus ended forever the then prevailing confused and chaotic system of clock-time so that today clocks throughout the world follow an orderly and simple plan. What man has accomplished for the clock he can also accomplish for the calendar.

To achieve this aim, individually and through public and private organizations, we all should write, speak and work for The World Calendar. Letters and resolutions sent by people everywhere to their respective governments would impress upon nations that this new calendar is earnestly wanted by the people and definite action should be taken.

I like to think of The World Calendar as a bridge of friendship over which peoples cross to converse with one another in the same orderly and reliable time-language: a bridge, spanning the chasm of confusion and enmity, by which they may reach greater perfection and beauty.

We are told when at peace to prepare for war, but the reverse is equally true:—when at war prepare for peace. The moment is here and NOW to reshape the calendar so that it may be a potent aid and, perhaps, a fore-runner of other changes so essential for world recovery and peace. For assuredly one of the foundation stones upon which to build a better world is to establish a better bond of Time.

It is natural to expect that governments are willing to cooperate toward bringing to success this far-reaching and worthy aim. With the close intercommunication through the radio and the interlocking of nations through trade, the civil calendar of today truly belongs to the world, as its name denotes. No longer is it the prerogative or the possession of any ruler or group. It is a world calendar for all peoples.

Therefore let this common bond of Time be permitted to fulfill its inevitable mission. This new World Calendar when so adopted, I believe, will endure as a monument of better understanding and unity among all men and of a more friendly and human world.

# LABOR WATCHES THE CALENDAR

By ARCHIE WRIGHT

*Chairman, Dairy Farmers Union*

LABOR unions have always been interested in the calendar, and in all movements seeking to change it into a more efficient instrument for recording the passage of the seasons and the march of the days, weeks, months and years. On a number of important occasions, in official assembly, representatives of the workers have given calendar reform—specifically The World Calendar—their enthusiastic approval.

Two of these occasions are worth recalling. The first was the resolution adopted by the Labor Conference of American States, which met at Santiago, Chile, in January, 1936. The delegates voted overwhelmingly for the perpetual 12-month, equal-quarter calendar, and besought the International Labor Organization at Geneva to send a copy of it to the League of Nations. Five months later, the I.L.O. echoed the sentiments of the Santiago conference in a resolution of its own, in which the following significant statement occurred:

"It is a well-recognized fact that the present calendar is very unsatisfactory from economic, social and religious standpoints, and that recent studies, investigations and reports have shown that there is a marked trend of opinion in favor of its revision."

That nothing substantial in the way of legislation by individual governments came of these efforts was due to a number of unfortunate circumstances, discussion of which has no place in this article. All that matters is the point that labor wanted a new and better calendar.

There is a reason for the position labor has taken and still takes on this question. I should say there are a great many reasons, and all of them begin with the machine and the mechanical age. The old craftsman, member of the craft guild, was a totally different man from the worker of today. He started work when he pleased; he quit when it suited his fancy. If it so suited him and he had the wherewithal he could take a week or a month off and there was no one to say him nay. These worker-manufacturers were their own masters. Time mattered, of course, but it did not have the special significance it assumed when steam-and-power-driven machinery appeared. With it, the craftsmen disappeared. Their sunny ateliers gave way to grim factories which were geared to start at a certain hour, leave off at another, equally set and rigid. In the factories, the men, women and children toiled from dark to dark, and time away from the machine became infinitely precious. It became a thing to talk about and to fight for.

Daylight saving today is virtually universal, but in 1905 when a Britisher named William Willett launched the idea, he was ridiculed and practically stoned in the streets of London. Willett today is practically unknown and forgotten, but he was symptomatic of labor's present attitude towards the calendar. In his campaign for daylight saving, he talked much of the young people who worked all through the day indoors, and who came out into the fresh air only when sunshine and daylight were failing, or altogether gone. He won his fight and helped crystallize labor's vague feeling about this suddenly important matter of time.

The history of labor organization is in the final analysis a struggle for time—time to live as human beings, time to putter in a garden, to dream, to whittle, and to enjoy the gamut of leisure-time activities. The slogans which the unions carried into their many battles are all plucked from the calendar.

Who is so ignorant of trade union history that he doesn't remember such phrases as, the eight-hour day; the 48-hour week; time and a half for overtime, etc.? The question of a living wage looms large, but the aspect of the workers' fight which is most familiar to the public is that which concerns the number of hours and days a man shall work. In this drive for a shorter working period, labor has been steadily and inexorably triumphant. The 12-hour day is no more. We have seen the 24-hour period divided into three segments of eight hours each, and recently into four of six hours. In many places the Saturday and Sunday holidays are also in force.

Labor's interest in the calendar and its alteration goes further than a simple interest in more leisure. In the first place, the workers are an integral part of industry, and industry has suffered and still suffers through the inefficiency of our Gregorian system of reckoning time. Let no one harbor the notion that the workers and their unions are not interested in the well-being of the industries which give them employment.

Leaders like Sidney Hillman and David Dubinsky, and those bitter rivals, John L. Lewis and William Green, not to mention a host of others, all have done yeoman work for the industries in which their organizations labor. Dubinsky, as head of the International Ladies Garment Workers, and Hillman, as chief of the Amalgamated Clothing Workers, have joined with established manufacturers in eliminating shyster and cutthroat competition. In many instances they have saved firms that were tottering on the edge of bankruptcy. Lewis, as head of the United Mine Workers, has also been helpful in his work with the anthracite and soft coal operators. They have been concerned with efficiency in industry; and with the loss of time and money, and the inaccuracies of accounting which this outmoded calendar of ours has made inevitable; and, therefore, have been sympathetic to the improvement in the reckoning of time as embodied in The World Calendar.

Some of this interest derived from the fact that the unions themselves have themselves become big business. With memberships in the hundreds of thousands, the larger unions operate banks and schools. They own great quantities of real estate. They invest in public enterprises, such as the recent New York World's Fair. They put on Broadway shows. They issue weekly and monthly periodicals. In all of these activities, they employ the calendar, as do any other business men, and they find their comparisons and statistical efforts rendered imperfect by the unevenness of the year's quarters as they now appear on our calendars.

As workers in industry, as business men themselves, as play producers and editors, as members of organizations vitally concerned with time, their stake in an improved calendar is greater perhaps than any other group. Moreover, they have all the headaches and agony of uncertainty that plague the ordinary mortal when he starts counting days or months.

Along with you and me they have had to chase Christmas and Easter through the years as Christmas meandered from one weekday to the next and Easter wandered over a period of 35 days. They, too, have been confused by the Thanksgiving embroglio.

They and their wives and children have been obliged to suffer the discomfort and inconvenience of meeting dates and celebrating holidays and anniversaries which landed on any weekday that the present capricious calendar ordained. For these reasons, too, labor wants a change.

The labor unions, moreover, have always lined up on the side of progress. They have supported education, the extension of cultural advantages, the measures that would advance the cause of civilization. They are interested in the calendar idealistically. They are also concerned concretely and realistically because calendar reform means internationalization, and because it would help in the battle they must wage unceasingly for better working conditions.

Consider labor's concern with time, consider its time-honored slogans—and then give thought to the advantages to the trade unions of a year in which each three-month period is equal, and which begins always on Sunday and ends always on Saturday. Equal quarters must simplify the division of the year into working and rest-days, on an equitable basis, fair both to employer and employed.

A new system of barter between worker and operator might well be worked out under a new calendar. The new calendar would simplify the making of agreements, the payment of sickness and unemployment benefits.

As others, more capable than I, have pointed out in this publication, the change in the calendar must bring a reshuffling of holidays so that all the wandering ones would fall on a Monday, or could be easily changed to a Monday, giving workers a Sunday and a Monday holiday in succession.

Thus all holidays would be "doubled"—and that is a boon indeed. As for the World Holidays in this new and stable World Calendar, there would be added one new holiday every year and an additional one in leap years, which would bring additional holidays into the calendar—holidays which workers throughout the world would mutually enjoy on one and the same day and date.

I might say, in passing, that the Dairy Farmers Union is not a trade union in the strictest sense of the word, insofar as none of its members works for wages. All of them are independent farmers who have in common a product which they sell in the great market of New York City. They have organized, as labor has organized, to win strength from union, and to employ this strength to get from the buyers a fair return for their labor.

The methods employed in accomplishing their ends are precisely those of the trade union: negotiation and the privilege of withholding their product. With the ordinary union, the product is labor; with this union of farmers, it is milk.

In their feeling about the calendar, and in the benefits they would derive from the improved system, they see eye to eye with members of industrial trade unions.

The modern farmer is a business man, and especially is this true of the modern dairy farmer. He operates on a triennial or quadrennial farm rotation plan, depending on local conditions. The date of planting, the amount of fertilizer, the kind and quantity of seed, concern him intimately, and are important accountancy factors.

Again, the dairy farmer uses farm machinery: tractors, seeders, mowers, silage cutters, milkers, cream separators. Their upkeep must be calculated, and these calculations make all the difference between profit and loss, success and failure.

There was a time when the farmer did not know whether he was gaining or losing money. Modern methods, cost accounting, bookkeeping and the general exigencies of this machine age have forced upon him the need for knowing, and with it sound business methods of keeping track. Proper measuring of time, a calendar that is as exact as modern science, can help the farmers of the future as much as it will the accountants, the statisticians, the industrialists.

Let us face the facts. The present calendar has failed the tiller of the soil, just as it has failed the trade unionist. In a statistical job, such as the farmer does when he attempts to figure results over a five-year period, the discrepancies produced by an irregular calendar are annoying, fault-creating, and, to my mind, sufficient reason to justify a change.

# THE STABILIZATION OF EASTER

By ABBÉ CHAUVE-BERTRAND

*Eminent Roman Catholic Authority on the Calendar*

(From *Ciel et Terre*, Brussels, March, 1940)

Translated by the Reverend Edward S. Schwegler, D.D.

**E**ASTER in 1940 was extremely early—March 24. There were only two Sundays after Epiphany in the Church calendar; Septuagesima was January 21, the Ascension May 2, Pentecost May 12, and there were 28 Sundays after Pentecost. Further, the feast of St. Joseph (March 19) fell on the Tuesday of Holy Week and the Annunciation (March 25) on Easter Monday; and these feasts had to be transferred to April 2 and April 1 respectively.\*

In the scholastic world, the Easter vacation began with Holy Week, around March 15, and lasted till the end of the month, so that the first trimester of 1940 contained hardly two and a half months, whilst the second trimester, from the beginning of April to the middle of July, contained at least three and a half months.

In other years, when Easter may be around April 20 or later, the opposite is true.

Does not such a state of affairs evince the complete justification of those people who demand that the feast of Easter be definitely fixed once and for all in the first half of April?

To confirm this justification with a few historical facts, let me briefly call to mind the evolution of the Easter date.

The first Pasch (from which feast Easter is derived) was celebrated by the Hebrews more than 3,500 years ago on the 14th day of the lunation that coincided, at the time of the departure from Egypt, with the return of spring. In Palestine the Israelites used a luni-solar calendar, the year of which contained 12 months, starting and finishing at the same time as the lunations and forming a total of 354 days. To this was added a 13th supplementary month every two or three years, whenever the difference between the lunar and solar years amounted to 30 or more days. The Paschal festival, placed on the 14th day or full moon of the month Nisan, which was the first month of the year, came 11 days sooner in each ordinary year as compared with the solar year, whilst in intercalary years the festival came relatively a whole month later. The Christian Church, heir of the Mosaic law, continued to use the full moon in determining the date of the Christian Pasch, or Easter, and this is the primary cause of

\*In the same year St. Patrick's day fell on Palm Sunday—"the shamrock met the palm." Where the day was of sufficient liturgical importance, it was transferred to April 3.—*Tr. Note.*

the feast's mobility. The other cause is that the feast is invariably celebrated on Sunday.

To give Easter an absolutely fixed date, it would be necessary to place the Sundays themselves on absolutely unchangeable dates; in the absence of which, the elimination of the moon in the Easter calculation would bring about only a relative stabilization: the feast would still oscillate over a period of seven dates.

I confine myself in this article to the latter possibility only.

The early Christians at first knew only of the variation in the Easter date resulting from the lunar aspect of the question. Being nearly all Jews, they celebrated their Pasch for some time on the same day as the Synagogue. But it was soon seen that this practice had the disadvantage of favoring the conservatism of a great many converts who, though professing Christianity, wanted to keep the Mosaic usages, among them the sacrificing of the Paschal lamb. After the destruction of Jerusalem by the Roman armies in the year 70 A.D., the Paschal feast, which had become impossible for some of the Jews, began to fall into disuse among the Christians, for whom it had already been abolished in principle. But there were some churches that kept up the practice: they ate the Paschal lamb on the evening of 14 Nisan and made a festival of the following day, 15 Nisan.

For the non-Jewish Christians of Rome and other parts of the Roman Empire, who had never performed the rite of the Paschal lamb, the 14th day of the moon of Nisan recalled principally the memory of the death of Christ; and the Resurrection having come two days later, these Christians began to transfer the Easter festival to the following Sunday. In their eyes this had the double advantage of enabling them to celebrate the feast on the same day of the week on which it originally occurred, and to separate the day from the Jewish festival.

In the last half of the Second Century this difference of practice led to a public controversy, which quickly degenerated into open dissension, concerning the date of the Easter festival. Pope St. Victor proclaimed that the Resurrection had to be celebrated on Sunday, not on another day, and at his request the bishops of the Roman Empire met to deliberate upon the question.

A number of councils—Rome for Italy, Lyons for Gaul, Corinth for Greece, Amestris for Asia, Caesarea for Palestine (in which the Bishop of Jerusalem took part)—proclaimed, or accepted as official, that the feast of Easter should be celebrated on the Sunday following the 14th day of the lunation of the first month. The Bishops of Antioch and Alexandria, consulted on the matter, also signified their approval.

The Council of Ephesus, on the other hand, under the leadership of Polycrates, Bishop of that city, took its stand on a tradition purporting to

come from St. John, St. Philip and the ancient churches, and so maintained that the feast should be celebrated on the 14th day of the moon, no matter what day of the week this might fall on. Followers of such a practice were called "Quartodecimans," or 14th-day partisans.

It was only with the Council of Nice in 325 A.D. that unity of practice was definitely established, at least in principle. At this Council were present all the bishops of the whole Christian world and the Emperor Constantine himself, who came to help bring about peace in the Church. Not that the Council established the present usage: we are beginning to see that the feast had already been observed on Sunday long before the Council and in the greater part of the Church: but the Council won over the dissidents to this ancient discipline.

It seems necessary to insist on this point because such insistence does away with one of the scruples that contributed to our retaining the variability of Easter over a period of 35 days, from March 22 to April 25. This scruple—and it lacks all foundation, as we shall see shortly—was based upon respect for the Council of Nice, which supposedly, according to the older authorities on the subject, "decreed that the feast of Easter should always be celebrated on Sunday, and that the Sunday should be the one following upon the first full moon after the spring equinox."

Let us repeat: this is the rule that prevailed, but was not established, in 325 A.D.

The supposed rule of the Council was mere conjecture, since nobody knew the official text of the Council's decrees. The text was supposed to have been lost. However, around the middle of the 19th Century it was rediscovered. It had been preserved by a Patriarch of Constantinople, John the Scholastic (d. 575), in a work entitled *Book of the Fifty Titles*. There were two known manuscripts of this work, one coming from Mt. Athos, and now in the National Library at Paris, and the other a possession of the Vatican Library. At the end of the manuscripts, after the fiftieth title, is the text of the Council of Nice referring to Easter.

The renowned Assemani inserted this passage as found in the Vatican manuscript in his *Biblioteca Juris Orientalis*, but it did not attract any considerable attention. Also, the learned Cardinal Pitra came upon the same document in the Paris library, and published it in his *Spicilegium Solesmense* (t. IV, p. 541), adding to it some further texts and some comments favorable to its authenticity. He also included the newly discovered text in his *Juris Ecclesiastici Graecorum Historia et Monumenta* (1864), t. I, p. 463). The text of the decree is also to be found in Tondini de Quarenghi, *La question du calendrier à la fin du XIXe siècle* (Bucharest, 1898, p. 28-35); in Mémain, *Notice sur le calendrier pascal des Juifs et des Chrétiens* (1897, p. 49-50); in Botto, *Il calendario unificato* (p. 141); in the *Dictionnaire d'archéologie chrétienne et de liturgie*, under the heading

Pâques (fasc. CXLVI-CXLVII, col. 1549).

One may also consult in this matter Msgr. Duchesne, *La question de la Pâque au concile de Nicée*, in the *Revue des questions historiques* (1880, t. XXVIII).

If any detail of this somewhat long, but not exhaustive bibliography is of use to one of my readers, let that fact be my excuse for presenting it. I also venture to reproduce the text of the Council itself, even though I have already included it in a previous article (*Ciel et Terre*, January, 1939) :

"After discussing the question of how necessary it was to celebrate Easter uniformly throughout the world, we ascertained that three-fourths of the world followed the Roman and Alexandrian usage, and only one-fourth, from the Orient, observed another usage. Therefore it appeared good to us, leaving aside all further investigation and discussion, that our brothers of the Orient should follow the usage of Rome and Alexandria, so that all might with single accord celebrate the holy feast of Easter on one and the same day."

From this text it is evident that what the Council wished to bring about was the universal celebration of the feast on the same day. Provided only that the decision about a particular day (or even a change in the established order if such is deemed advisable) comes from the Roman authorities, and provided that the whole world conforms to the Roman discipline, the Council and tradition remain inviolate. That much is clear.

Equally clear is the answer given to W. Foerster in 1897 by Cardinal Rampolla in the name of Leo XIII: "If the world of learning succeeds in crystallizing public opinion and there is a universal demand for the relative stabilization of the Easter date [there was no question then of an absolute stabilization], the initiation of a corresponding reform could be considered by the Holy See, above all in a general council."

One may note this last phrase and compare it with the answer which Msgr. Maglione, then Nuncio at Berne, gave to the League of Nations in the name of Pius XI: "If it were shown that the general good demands some change . . . , the Holy See would not wish to examine into the question without an Oecumenical Council first expressing a desire that it should do so."

If one finds, in these two answers, a slight difference in terms and in suggested procedure, one may also compare the words "without an Oecumenical Council first expressing a desire" with the words "a universal demand," and conclude that the fundamental idea in each response is the same: a universal demand or agreement, which could, however, be expressed in various ways.

Hence, there is no fundamental impossibility in the proposal to change the Easter date; but, to quote again the answer of the Holy See to the League of Nations, "Any eventual changes in this matter, though they do

not give rise to any dogmatical difficulty, would nevertheless tend to the abandonment of firmly established traditions, from which it would be neither proper nor acceptable to depart without weighty reasons of universal concern."

Exactly! These words are, in effect, an expression of the great laws of evolution and adaptation. Everything living develops and changes; we must be continually abandoning something of the past in exchange for something better in the future; the most ancient and venerable of traditional institutions must themselves be modified from time to time; and more than once people have regretted that reforms did not come about when they were first desired.

But also, most of the changes that occur in this world do not take place without opposition, and it is here that the élite, the "world of learning" in the words of Leo XIII, must enlighten public opinion; must prove to it that the rule we now follow for determining the Easter date comes to us from a state of affairs that has "ceased to exist"; must demonstrate that, from whatever angle we approach the problem, we always come to the fact that the mobility of Easter derives essentially from the luni-solar computation of the Jews and that it represents nothing more than the imperfections of the calendar used at the time this feast was instituted.

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### THE REVEREND D. R. FOTHERINGHAM

From the Rational Calendar Association, London, England

THE REVEREND DAVID ROSS FOTHERINGHAM, formerly Vicar of Charing, Kent, died on June 30, 1939, at the age of 66. He was a scholar of wide and varied interests, a recognized authority on the calendar and an advocate of Easter stabilization and the simplification of the calendar.

After graduating at Cambridge and being ordained in the following year, 1896, he served with the Philhellenic Legion in the Greco-Turkish War of 1897 and was made by the Greeks a Knight of the Holy Redeemer.

On his return to England he did not settle down to the life of a country clergyman, but roamed over a wide field. He became secretary of the Church of England Liberal and Progressive Union, a Fellow of the Royal Astronomical Society, secretary of the Byron Society.

He wrote many books, mainly on calendrical topics. They included *A Chronology of the Old Testament*, *Festivals of Our Lady*, *The Date of Easter* (with a Preface by Lord Desborough), *Royal Stuart Calendar*, *Royal Calendar*, etc.

In an article by him which was published in this *Journal* in June, 1932, he urged that "when the reform of the Calendar is reverently suggested and its advantages explained, it is not too much to ask that it may be carefully considered, and even welcomed and finally approved, by ecumenical authority."

# FATHER TIME HAS A CONSCIENCE

By RABBI MARTIN M. WEITZ

*Beth Hillel Temple, Kenosha, Wisconsin*

“WE think our civilization near its meridian, but we are yet only at the cock-crowing and the morning star. In our barbarous society the influence of character is in its infancy.” Thus spoke Emerson in an *Essay on Politics*, in mid-Nineteenth Century America. Mid-Twentieth Century America may well echo and emphasize this prophetic and historic summation, for in spite of a decade of aggression and conflict, and a century of social earthquakes and racial Armageddons, Science as well as Religion pause before the unknown in each other (as if in reverence for the best in one another) and thus affirm that Father Time has a Conscience! In spite of a short range pessimism for today, we may indeed have a long-range optimism for tomorrow, for after all conscience is but 5,000 or more years new, whereas conflict is over 500,000 years old.

The contrast between conflict and conscience is pointedly clarified in Breasted’s *The Dawn of Conscience* (p. xxv): As the oldest known implement-making creature man has been fashioning destructive weapons for possibly a million years, whereas conscience emerged as a social force less than 5,000 years ago, . . . May we not consciously set our hands to the task of further developing this new-born conscience until it becomes a manifestation of good will, strong enough to throttle the surviving savage in us? . . . (p. 1) “There are spots in Europe today where chance has brought strangely near together and left lying side by side the relics of the earliest pre-historic savages, and the evidences of so-called modern civilization. . . . The River Somme in Northern France is in places thickly sown with fragments of steel shells which have penetrated deeply into the natural terraces made by the river ages ago. . . . Today . . . a shovel may uncover . . . lying together . . . the flint fist-hatchet, . . . and the jagged fragments of explosive steel shell.” *Thus the testimony of History*; that cooperation not conflict has an edge on the future. . . .

In a scientific survey of a story on *The Birth and Death of the Sun*, Professor George Gamow assures us that we have in prospect, for some millions of years, an expanding not a shrinking sun; and that we have a fill of ten billions of future years at least from the vantage point of today, in comparison to a mere two billion or less already experienced in the past. Other astrophysicists guarantee us a long planetary existence in such an illustration as this one: If one-half inch on a graph were the measure to indicate the life of man from earliest days to the present, then

the future of man would be over a mile in length on the same graph in the world of space. If, in the world of time, the total span of man were reckoned as 70 years then we have now reached the early noon in the first day of our existence! *Thus the testimony of Science*; that the "World of Tomorrow" belongs indeed to conscience *not* to conflict.

Early in the 27th Century before the Common Era, or nearly 4,700 years ago, Ptahhotep, a Grand Vizier of Memphis, penned in pyramidal permanence these words: "Established is the man whose standard is righteousness, who walketh according to its way." "Righteousness is for eternity," echoed one of his disciples several centuries later. The "thin small of voice"—the *Kol Demamah Dakah*, as the Hebrew has it—welled up not only from an Elijah (in pre-Christian Seventh Century Israel), but from all of mankind's hosts of known and unknown prophets, philosophers, sages and scribes from earliest times to the latest of days, from all the lands of the earth, from man's search for God, and from the voice of conscience within him and about him. *Thus the testimony of Religion*; that the grain of the universe is toward natural law in the life of the universe and toward moral law in the life of man, toward cooperation *not* conflict.

When man early devised a calendar he divined a conscience in Father Time and himself. When he first wondered about the stars and peeped into the flecky light of the sky he perceived, to a degree, the order in the universe and thereby measured time. When man's eyes wore the lenses of time to behold the world and wonders of nature, he sensed certain eternal verities, and sought meaning and God—or Conscience—, as early man could best do it, in nature and simultaneously in human nature. When the sun-dial first captured solar shadows in China (2637 B.C.E.? ), and the water-clock first imprisoned Nile drops in Egypt (6500 B.C.E.? ), and giant stone pillars first charted solar rays in Peru, man climbed his pyramids and his "pyra-mounds" to adjust himself to the universe. He could adjust himself to the universe more fully when he beheld, not only the round of the day, but of the week, the month, the season, and the year as well. When he created the calendar he charted order in space and time. He "invented" a calendar and "discovered" a conscience!

Calendars universally emerged from the world's shrines and these primarily protected the "dawn of conscience." They not only recorded but enshrined the great days of the years in the life of groups and individuals and in the life of nature, too, the hinges upon which swung the seasons, as Winter and Summer Solstices and Spring and Autumn Equinoxes. Ministrants of primitive religion were but few steps ahead of communicants in their climb to the altar of time, atop the pyramid of space.

Civilization might be described as man's increasing victory over fear and man's increasing light over inner and outer darkness. Time-marking

was time-making indeed. It was a victory for civilization, for it helped man to change from hunter-herder to farmer-villager with a minimum of conflict and a maximum of cooperation. The calendar also aided him in his perception of the natural order of the seasons, in their crises of solstice and equinox, and the moral order in the crises of his own life—as birth, puberty, marriage, illness, and death.

The “thin small voice” of conscience (“thinner” and “smaller” at that time than now) was heralded in various ways: when man reached out from primitive to more advanced religion, when he learned sculpture from idol-making (which in turn derived from scarecrows on the field against evil spirits as well as birds of prey), when he transformed crude stone pillars into Temple-columned architecture, when he lifted simple fear-phrases into prayer and poetry, when he elevated seasonal nature orgies into cadenced choruses and rhythms of dance, when man measured moments into moods, and learned the meaning of time, which added new meaning to the “days of my years.” Man counted great days on beads of a necklace so that he could utter with Psalmist of yore, “a thousand years are but as yesterday when it is passed,” and could meditate with modern poet, “What minutes! Count them by sensation, and not calendars, and each moment is a day!”

Father Time has a conscience! And it is our contention:

(1) That great days of the calendar do and can augment and energize the content of conscience;

(2) That such days might with benefit be reinterpreted in these modern days;

(3) That a modernized calendar as The World Calendar—implemented by such great days with vitalized meaning and introduced simultaneously—could improve these days in an improved year to a willing world, and thus help to chart anew, with new interpretations the representative days for the year. These days would bring more order in the life of man and in the life of his calendar, which has been termed “the shadow of nature in the life of man.”

Great days in the life of man have ever helped to decrease conflict and fear, and to increase cooperation and hope. Originally, these have been days of crises in realm of nature and human nature, and in the deeds and creeds with which they were enveloped. But later these were refined, helping to take off the edge of their earlier dread. Birth, maturity, marriage, illness, and death were moments of real crises in the world of man. He learned that grief “like joy can be sedate, confirming, cleansing, making free, strong to commend great thoughts, grave thoughts.” He surrounded birth with rites like circumcision and baptism, puberty with pageantry of confirmation, *Bar Mitzvah*, and marriage with song, veil, wine, ring, and dance. Illness was stayed with means of therapy (physical and spiritual),

and death was endowed with "the final rites" of burial, cremation, even mummification and monumentalization.

The equinoxes and solstices were days of crises in the world of nature. Easter and Passover and their glorified religious momentum came forth from earth. Even now they retain the spirit and song of earth in her annual rebirth of the Spring Equinox. Christmas and Chanukah, festivals of light in the heart of man even in the midst of winter's darkness, are the Winter Solstice, candle-lit as it were, gift-encircled and conscience-graced.

What was done with each of these great days as a "moment of conscience in the heart of man," may be done in a lesser degree with other days. Limitations of time and space permit suggestions for only a few of such days, whereby Father Time may "hearken into the voice" (apologies to Franz Werfel). We present but several select candidates for social "ordination," as it were, from among the days of the year. We shall take these days from American holidays for current interpretation and usage. They are but representative and illustrative of what could be done, not only with them, but with other occasions of similar social signification.

Let us take the new World Calendar date, *Sunday, February 12: Lincoln's Birthday Anniversary and Race Relations Sunday*.

This event is rich in meaning. It adds stature to the spirit of Lincoln—"the strange friend and the friendly stranger," "the merciful mystic of union and the circumspect manager of men"—by increasing homage to and the enactment of Lincoln's personal virtues and social ideals. It glorifies not only the Lincoln of the past, but the Lincoln-hopes for the future. The play and movie, *Abe Lincoln in Illinois*, the Sandburg Volumes of *War Years*, and the 75th Anniversary last year of the death of Lincoln, and the Emancipation Proclamation; all these are vehicles for encouraging the Lincoln-spirit to guide America anew. The holiday might emphasize:

(1) Rededication to democracy (political and social).

(2) Recognition of the needs and rights of racial minorities in the spirit of the Proclamation of Emancipation and Declaration of Independence.

(3) Organizationally, these aims might be implemented by means of inter-racial broadcasts, with great songs, and interviews with scientists, discussions on communal problems—all that would lead to better knowledge of other peoples and races and finer appreciation of their distinct contributions to the arts, sciences, industries of the America as envisioned by Abraham Lincoln. In a calendar where February 12 is always on Sunday (as in World Calendar) the Lincoln theme could be enhanced immeasurably by special services on Sunday as part of religion and by patriotic exercises on Monday.

*February 22: Washington's Birthday Anniversary and Brotherhood Day.*

This holiday could serve not merely as a patriotic celebration of the birth of our first President, but as a great occasion to increase the value of Washington's concepts of tolerance, freedom and understanding, in the cause of Brotherhood. We need to realize, even as did Washington in his day, that the creation of the Republic was religious in origin and destination, as well as political in transit. The great phrase, "All men are created equal," is but a political translation of the greater religious dictum, "Thou shalt love thy brother as thyself." Religion and Democracy, especially today, had better join hands and hearts in the spirit of Washington so that America can be a singing symphony of both. Catholic, Protestant and Jew need each other in the name of Democracy and Religion as never before. As in Washington's day, America is one of the few countries on earth where each may freely worship (Religion) and fully strengthen each other in their common work through equal opportunities (Democracy). Another way of expressing it is that "*Brotherhood is national defense*" and "*Americans all are Brothers all.*" Washington willed and worked for it when he, as our first exemplar, advanced these American sentiments to a Protestant minister in 1792, to a Catholic priest in 1789, and to a Jewish congregation in 1790 (the last in a note carried these words: "The Government of the United States gives to bigotry no sanction, to persecution no assistance" . . . "*All possess alike liberty of conscience and immunities of citizenship.*") Brotherhood Day, then, has found its way into the hearts of millions of Americans. Ten thousand communities in honoring Washington also honor each other. City-wide observances, luncheon clubs, fraternal orders, religious organizations, public schools, all share in the quest for the Brotherhood of Man in the name of Washington, where usually a Pastor, Priest, and Rabbi, or Protestant, Catholic, and Jew, all serve as a trio of spokesmen at round tables, seminars, radio broadcasts, news services, good-will tours, summer institutions, and national conferences. In certain communities conscience is enhanced by having Brotherhood Day graced by the name of one of its leading citizens signally honored on that occasion. (Kenosha, my home city, gave such an example: In 1939 its Day was known as the *Mary D. Bradford Day of Brotherhood*, in honor of its 84-year-old veteran educator and "leading citizen.") Features of this event were: a dinner; a symposium by spokesmen of three faiths; and the naming of the city's only high school after her.) And Brotherhood should also include, should it not, our native Indians, and the Hindus, Buddhists and those of other lands? As a Catholic priest, at a dinner given for the Temple of Religion at the New York World's Fair in 1939, said: "I wish my Hindu brothers were here." These and similar activities may be planned into a Brotherhood Week from

February 12 to February 22. A play by children, a symposium by representatives of religion, a night of music, as well as visits to different shrines may each be the central program of consecutive days—in behalf of Brotherhood.

*March: National Health Week.*

This month, as it observes no national or religious event in the United States, might well launch a crusade in behalf of better national health or add momentum to already existing efforts. Tuberculosis, cancer, social diseases, mental ailments, are but several of what might be called "Ten Plagues of the 20th Century," against which constant effort must be waged and effectively aided in a National Health Week in March. Cancer alone has an annual toll of 750,000. Mental disorders number 500,000 among men, women, and children, who have cracked in conflict with life. If National Health Week could help reduce this tragic disorder alone, which costs America over \$750,000,000 annually, it would demonstrate that our greatest defense for freedom is freedom from fear, and that our truest national wealth is national health. But it could do more: It could educate the citizens into better measures for health by private medicine, government hygiene, hospital insurance plans, or cooperative medical care.

*May 30: Memorial Day for Heroes of Peace as of War.*

This fine American custom was first enacted in 1867, at Columbus, Mississippi, when Southern ladies inaugurated the custom of decorating the graves of Northern as well as Southern soldiers in memory of those who had fallen in the Civil War, thus uniting the nation in a common homage. It calls forth the classic lines of O'Hara: "And glory guards, with solemn round the bivouac of the dead." Later homage was added for the dead of other wars.

Memorial Day rightly recalls the heroes of war. But, why should we not remember, too, the heroes of peace, those men and women who in peacetime activities gave their lives for others—as railroaders, builders, policemen, fire-fighters, nurses, and mothers? These form an army larger than any fighting force in the world, a force which never knows a respite from serving mankind.

Memorial Day is the consecrated day of reverence and peace among American holidays. Let us aim to keep it so and refrain from making it boisterous and noisy through motor races and athletic bouts. Solemn qualities might be emphasized in religious service, educational values program, and radio "honor hour" on this commemorative day.

(1) We need a more quiet day. Shouting is never heard at Lincoln Memorial in Washington, nor at Saint Peter's in Rome, nor at the Taj Mahal at Agra. Silence would enhance the day and place. Memorial Day would gain in meaning and significance by silence and constructive thought.

(2) We need more honest memories for the day. If we salute the heroic dead, soldiers in their "honor hour," let us also honor them further by making more vital our democracy and more alert the ideals for which they died, whether performing their civic duties or their daily tasks, giving equal honor to the unknown and unsung heroes of peace who spared not themselves in the open furrows of human needs...

*July 4: Independence Day, an American Way to World Freedom.*

To emphasize the theme of freedom hemispherically first and later universally, as well as to help bring a more permanent peace into the world after current conflict, to plant seeds of conscience for likely fulfillment into "treelings" of cooperation in the Americas, and later, if possible, in the world at large; it would be wise for ourselves and the world if we enlarged our concept of independence even as we expanded our Monroe Doctrine and if we conceived of it hemispherically as well as nationally. Our Declaration of Independence (1776) was successively implemented by our Declaration of Monroe (1823) which was further supplemented by our Declaration of Havana (1940). Is it not essential to preserve personal freedom (Declaration of Independence) and international American freedom, first in the Monroe Doctrine and later enlarged for international and inter-American freedom (Declaration of Havana), in order to secure a safeguard from external invasion? Let the freedom born on Independence Day expand into a greater Americanism or *Pan-Americanism*, developing thereby a more harmonious unity within the Western Hemisphere, without sacrificing our respective national freedoms. The mandate of the future—this faith in freedom—is to work with the forces for humanity not *against* humanity, with cooperation not conflict, as attested by history and "prophecy." For "history is but prophecy written backwards." Even as the United States of America has served as a model workshop for freedom for 150 years, a federation of the Americas, emergent from the Havana Conference, might perhaps lead onward (if we believe in man and in his future!) into a union of federated nations of the world.

As with the other "days" mentioned, Independence Day offers practical equations in which all may share:

(1) To exchange fellowships and students among all universities in all the Americas.

(2) To travel north and south into Canada, Alaska, and the Latin Americas.

(3) To construct Pan-American continental highways, air-lines and sea-lines, so that all units may be available and accessible.

(4) To plan Pan-American Houses, on a pattern similar to that of both the New York and Chicago International Houses, in other American cities and countries.

(5) To erect inter-American monuments (as Glacier-Waterton Parks

and playgrounds) throughout the Americas and to de-militarize boundaries for all the Pan-American States as now exists between United States and Canada.

(6) To participate in such ventures as the *Reader's Digest's Latin-American edition* for inter-American good will.

(7) To adopt The World Calendar as a means to improve not only inter-American but also inter-world relations via a permanent calendar, toward a greater simplification and unification of world time-measurement. What has been wrought so advantageously for the clocks along Standard Time certainly may be extended to the days, weeks and months of the calendar!

At some other occasion similar interpretations and procedures for other great days of the year may be formulated. But for our present illustrative purposes it will suffice to pause in mid-year with Independence Day, as it were.

*December 31 or Y: Year-End Day, a World Holiday.*

We do wish to propose, however, one more "candidate," one unknown day as yet, but one which properly could be said to precede all previously listed days, one to complete the year with, when the proposed World Calendar is adopted. We present it here for it may add more than its share toward greater world cooperation. The World Calendar has a name and place for this new day. It is designated Year-End Day, is substituted for the current 31st day of December, and serves as an *extra Saturday or Sabbath*, following Saturday, December 30 every year. It is always a double Saturday in The World Calendar—and comes just before January 1—always a Sunday.

It is a World Holiday—comparable to the double Sabbath rest, called the Great Sabbath or rest-day of ancient Hebrew observance, the weekly Sabbath (Abib 14) and the Passover day (Abib 15) following, which constituted a 48-hour period of rest.

This three-day or "three-way" week-end (Saturday, double Saturday, and Sunday) could be local, national, and international in scope, and could serve religious, national, and recreational aptitudes; could augment moods of deep seriousness and high enjoyment. The first Saturday could remain the Sabbath of Israel; the double Saturday holiday could be offered in a spirit of World-Federalism where awards would be bestowed on distinguished citizens, statesmen, scientists, artists and writers for outstanding humanitarian service during the year, such as Nobel Awards and Pulitzer Prizes. And the day following, the Sunday, would remain the day of rest and worship for Christianity, by which every New Year would begin with the working day, beginning always with Monday, January 2.

This "Year-End" or "Week-End" or "World of Tomorrow" Day

might also be a substantial basis for world-wide centenary celebrations in the lives of nations and peoples, or of epoch-making events in the life of all mankind, such as the invention of printing; the discovery of electricity; the first radio broadcast; or use of telephone; the use of radium, etc.

We referred to the calendar as "the shadow of nature in the life of man." May we not look upon The World Calendar, streamlined as it is in regular quarters of three months each, 13 weeks or 91 days, always beginning on a Sunday and ending on a Saturday, and air-conditioned as it is in months of 26 weekdays, plus Sundays, as a light of the new world to come by which the shadow is dispelled?

All these projections that have been suggested prove that man ever hungers for world order, wills for world harmony, and works for world peace and strives for universal justice in spite of recurrent and current lapses from these goals. And may not such days as proposed above, for and in such a World Calendar do their part, although small, to keep alive such dreams as World Federation even as they help enact such social themes in currently celebrated yet newly interpreted days?

If the answer to such queries is "yes," then the calendar is indeed more than a mere "shadow of nature in the life of man." It becomes one of man's outposts of "light" in our civilization in the uncharted and as yet untraveled realm of time—man's means of measuring his past, planning his present, guiding his future. It serves as one more tool in the heart as well as in the hand of man wherewith man may wage ever increasing victory over fear and greed, and discover once again, as did our ancestors some 5,000 years ago, that Father Time (our calendar), even as you and I, *has a Conscience!* . . .

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## CHRONOLOGICAL ERAS

From the *Telephone Almanac* of 1941

THE year 1941 of the Christian era comprises the latter part of the 165th and the beginning of the 166th year of the Independence of the United States of America, and corresponds to the year 6654 of the Julian period.

January 1, 1941, Julian calendar, corresponds to January 14, 1941 in the Gregorian calendar, which is used in the United States.

The year 2694 since the foundation of Rome, according to Varro, begins on January 1, 1941, Julian calendar.

The year 5702 of the Jewish era begins at sunset on September 21, 1941, Gregorian calendar.

The year 1360 of the Mohammedan era, or the era of the Hegira, begins at sunset on January 28, 1941, Gregorian calendar.

The year 2601 of the Japanese era begins on January 1, 1941, Gregorian calendar.

EDITOR'S NOTE: The Chinese year commences with the day on which occurs the second new moon after the day of the winter solstice, and, therefore, cannot begin earlier than January 20 nor later than February 20. The Eastern Orthodox Church, followers of the Julian calendar, begin their year 13 days later than the Gregorian, on January 14.

# CANADA SNEAKS UP ON THE SUN

By THOMAS WAYLING

*House of Commons Press Gallery, Ottawa, Canada*

ONE bright morning in Paris, Benjamin Franklin awoke to find the sun streaming through his windows. It was not yet six o'clock, hours in advance of the rising hour of fashionable Paris, but Ben Franklin's servant had omitted to close the shutters the night before. The sun-up brought Franklin to wakefulness.

It also brought an unusual train of thought to the great American. Had it not been for the sun he would have slept on for four or five hours; which would, he cogitated in surprise, have caused him to lose several hours of daylight.

It never would have occurred to him that the closed shutters, blacking out the light, had lost him hours and hours of each day.

Ben was nothing if not thorough. He jumped up and hunted out an almanac. It told him that in summer the sun rose earlier each day—that there were increasing daylight hours until the end of June when the sun would be up at 3:15 A.M.

"Ah," mused Franklin, "by lying abed the day is started later and people remain up later. That means they must have artificial light for a longer time in the evening."

He went on with his musings. Say there were 100,000 families in Paris all getting up late, wasting the early hours of daylight and tacking on hours of darkness at the other end of the day. Each family would consume half a pound of wax candles each dark hour; and probably seven hours a day. That would mean, in six months, in Paris alone 65,050,000 pounds of wax at 4 cents per pound would be unnecessarily consumed each year.

One thought led to another, that if Parisians would start the day earlier they would use more daylight and less candlelight. He propounded this possibility to Paris, but the Parisians disapproved. They had no intention of getting up at unearthly hours in the morning. So daylight saving was postponed for many years. The first actual proposal was in 1907 when William Willett wrote an article in the London *Daily Telegraph* advocating daylight saving by the advancement of the clock.

There was some support for his proposals, but farmers and the railways opposed the idea. In 1908, Sir Robert Pearce introduced into the British Parliament the first daylight saving bill. He proposed clocks be advanced 80 minutes. The bill was referred to a special committee which amended it by substituting one hour for Pearce's 80 minutes. Despite the change the bill was defeated.

In 1908 and again in 1909 the bill was re-introduced but failed on each occasion, and Sir Robert dropped it. Willett persevered with his campaign. The idea gained ground, but Willett died in 1915 without seeing his plan used, for it was not adopted until 1916—one sad year later.

The Great War was then in progress and to conserve fuel a daylight saving bill was introduced and passed by Parliament on May 17, 1916. The practice of daylight saving became popular and the bill was re-enacted every year until 1925 when it was modified, making "Summer Time" permanently effective in Great Britain and Northern Ireland.

It started each year on the third Sunday in April, but if that was Easter Sunday then it started the second Sunday. (Like King Charles' head that movable Easter is ever-present). Automatically Summer Time ends in England on the first of October.

It would be simpler and "honester" if all concerned were told to start the job at 7 A.M. instead of 8, or 8 instead of 9, and so on, quitting an hour earlier by the clock. But humanity loves to be fooled. I must confess to setting the old clock in my bedroom half an hour earlier when I wind it Saturday night (or 25 minutes or 20) so that the clock is never set the same as last week, or I'd get used to it and discount it when I wake up. Thus I fool myself and get down to breakfast before somebody drops a wet sponge in my ear, or sends up the pup to start a "spitzkrieg" on my face.

Canada followed the British example in the last war, but subsequently the Dominion Parliament left it to municipal authorities to decide for themselves. Most of the big cities and towns go on daylight saving time for the summer, but some of them, particularly those dependent on agricultural communities, keep the old time.

Thus like the calendar, clock-time is complicated in the Dominion. There are five time zones: Atlantic in the Maritimes; Eastern in Quebec and Ontario; Central from Fort William to Broadview, Saskatchewan; Mountain from there to the height of land in the Rockies; and then Pacific time west of the Rockies.

That may be complicated by some locations being on daylight time and others on standard. The farmers and railways cling to standard time. The people of Port Arthur at the head of the Great Lakes, for instance, may be getting up an hour before the people of Matapedia, Quebec.

Daylight time was to have ended in Canada on September 24, but war exigencies have brought about, in part, Benjamin Franklin's ideal. Canada no longer uses wax candles but hydroelectric power, and this costs money just as candles do. So to save electricity, daylight saving time is to be continued in Canada until further notice. Canada is at war. *And in war time many reforms are carried out which only hang fire in time of peace.*

Even the eight-hour day and the 42-hour week, those cherished founda-

tions of Labor's Magna Carta, have temporarily gone into the discard. The Dominion is "all out" in its war effort, and airplane and munitions factories are running 24 hours a day, and seven days a week.

Now comes the dictum continuing daylight saving time. The primary objective is the saving of man's light and the greater use of God's light. Sunlight is free; hydroelectric light and power are costly, even in Canada where "white coal" is abundant from Niagara up to Abitibi.

In a city like Toronto one extra hour of daylight means one hour more before the home lights are turned on, before the electric stoves, and so forth, boost electric consumption to the peak load. That saved hour for domestic use means a vast addition to the electricity used as power by factories and munitions plants.

So Canada is multiplying Ben Franklin's candle economy ten thousand-fold. Before the war is over she may have done the logical thing, and started a numerical hour earlier and left the clock hours alone.

And during this international upheaval, Canada may get down to reform the days, as she reformed the hours in the previous world crisis of 1914. Canada with her other good neighbors of the Western Hemisphere would thus bring calendar reform in the wake of daylight saving time.

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### METHODIST BISHOPS APPROVE

By THE REVEREND J. G. GARTH

(From *Observer*, Charlotte, N. C., February 9, 1941)

WHEN the Council of Bishops of the consolidated Methodist Church met in Atlantic City, New Jersey, in December, it had before it a resolution adopted by the General Conference which had met in the same city last May in which a fixed date for Easter was proposed for submission to the next four-year conference in 1944. After considering the resolution, the bishops, who were asked to digest the resolution which was proposed to the conference, and make recommendations, not only approved of a fixed date for Easter, but also approved in principle The World Calendar, which fixes all holidays.

We are so used to the irregularities of our present calendar that we take them as a matter of course, but a very little study of the calendar makes clear the confusion it brings to economic, social, and religious life.

The inequalities of the divisions of the year and the months are always calling for adjustments, and it would be a marvelous advancement if we could have a calendar that would iron out all this confusion. This is what The World Calendar proposes to do.

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EDITOR'S NOTE: The initial action in calendar reform was taken in 1935 by the College of Bishops of the Methodist Episcopal Church South, a component part of the now united Methodist Church. They then went on record as favoring April 8 as a fixed date for Easter, if The World Calendar is adopted as proposed. The recent action of the Council of Bishops in approving The World Calendar will aid the Committee on Interdenominational Relations, the body to which the General Conference at Atlantic City, May, 1940, referred the matter in their final report.

# TIME AND A MATHEMATICIAN

By DONALD P. LING

*Columbia University*

THE apathy of the people of the Occidental world to the reform of the antiquated and cumbersome Gregorian calendar is a classic example of popular aversion to change of any kind. It is true that the past several decades have seen an enormously increased acceptance of scientific modes of thought on the part of laymen everywhere. A steadily increasing volume of popular books on scientific and technical subjects has appeared in all parts of the world and aroused in the minds of all sorts of people a more or less legitimate curiosity about the scientific backgrounds of a scientific era. Even the mathematician has ceased to be suspect what with the efforts of such writers as Lancelot Hogben and Sir James Jeans. Now it might be supposed that a civilization attracted so strongly by the precision of such technical subjects would be indignantly aware of the evident imperfections in many of the processes by which its collective life is ordered. Yet such is far from being the case. The same amateur of science who swoons over the cosmogonies of Einstein or de Sitter maintains a stoical indifference in the face of the zany irrationality of the Anglo-Saxon system of weights and measures. The lay philosopher, appalled by the implications of the Principle of Indeterminacy, is unperplexed by his inability to tell you the date of next Thursday.

The simple and natural "metric system" of weights and measurements was instituted by the French Republic in its enthusiastic youth. Its acceptance by scientists was almost immediate, but it was many years before the force of its simplicity asserted itself over Europe. In England and America its use is still confined to the laboratories. The Republic next turned its attention to the vexing irregularities of the calendar. The solution arrived at was somewhat less happy than in the case of material measurements. The 30-day months—with a distinct à la carte flavor to their names—the five extra days, the abolition of the week as a unit of time, were not even an original remedy—the Egyptians some three or four thousand years earlier had employed the same system. How valuable it might have proved is in any case beside the point. Napoleon did away with it in 1805 as smacking too strongly of a republicanism which no longer suited his purposes. The world relapsed—if indeed it had ever been influenced otherwise—into the endearing complexities of a calendar which, in its essence, was old when the Roman Empire was young.

The mathematician, reflecting on the history of his subject, finds example after example of stubborn adhesion to familiar ways, however out-

worn and inadequate they may be. The effects of this social inertia have often been devastating. Witness the course of ancient mathematics. It is customary to think of the ancient Greeks—and to some extent the Egyptians of an even earlier day—as mathematicians of a high order. In actual fact this is precisely half true. For mathematics divides very roughly into two parts: geometry, the study of lines and curves and of figures composed of lines and curves; and analysis, the study of numbers. In the former branch the Greeks attained to a really extraordinary degree of proficiency: Pythagoras, Apollonius of Perga, Euclid and his colleagues in Alexandria brought the study of geometry nearly as far as it was then possible to develop it. In analysis, however,—in the matter of reckoning with numbers—they were far less skilled than the average grade-school graduate of today. This was not the result of any lack of good minds; it was rather the result of a hopelessly defective notation for numbers. Addition or multiplication with the numerals they possessed was out of the question. Now had the literate non-mathematicians of the day revolted against this clumsy system, the minds trained in mathematics would surely have hit upon the correct system. For the abacus, or counting-board, was in universal use throughout the Near East; and the abacus is the precise embodiment of the then unrecognized natural scheme. But no revolt took place. The world stood pat until the Arabian school of mathematics introduced the system of numerical notation which we use today. Its discoveries seeped into Europe via Moorish Spain and spread with agonizing slowness over the various states. Once this method of writing numbers was established the advance in the analytical part of mathematics was rapid and continuous. If, however, 1,500 years earlier, these changes had taken place, the state which the science might have reached by this time is obviously beyond conception.

And right now, in this enlightened age, the same sluggishness which delayed the progress of science is standing in the way of the comfort which could be derived from a sane calendar. It would perhaps be incautious to claim that the adoption of The World Calendar would appreciably alter the course of history in the large. What it would do would be to advance materially the ease and simplicity of the lives of more than two billion individuals.

If it is worth while to build cheaper and more rapid means of locomotion, to develop radio and television and to install photoelectric door openers, then surely it is worth while to rid the world of an unmanageable method of calculating dates. If it is permissible to discuss in all gravity the advisability of replacing the decimal by the duodecimal system of numbers, if it is considered an advantage to institute daylight-saving time in many portions of the world, then how much more desirable would it not be—merely from the point of view of human comfort—to provide people with a method which enables them to apportion their social or professional schedules and which can be understood and applied without the help of a slide rule, pencil and paper. To the mathematician, who is likely to possess a special reverence for regularity

and orderliness, it seems particularly to be desired. The author can lay no claim to an intimate knowledge of either the many problems connected with the calendar or of even the more classic of the proposed solutions to these problems. The following points, however, come immediately to the mind of anyone accustomed to operating with numbers.

First, the year is not composed of an even number of days. The excess of the solar over the civil year is an unfortunately awkward fraction of a day. Various methods of intercalation have been proposed. It is perhaps interesting to note that one of the more accurate of these methods is accredited to a celebrated member of the Arabian school of mathematics referred to above—the poet-astronomer-mathematician, Omar Khayyam. His device was to insert eight days every 33 years. While this provides an admirable approximation, it lacks the virtue of simplicity. It is unquestionably best to retain the present easily remembered intercalation of one day in every four years.

Second, the number of days in the civil year—365—has only two factors: 5 and 73. Consequently the subdivision of the year into “months” (disregarding the lunar connotations of the word) cannot be done equally. Numerous suggestions have been made to meet this difficulty. Following the French Republic one might employ 12 months of 30 days each, five days remaining to be disposed of arbitrarily. Overlooking the distribution of the weeks throughout such a year, it is at least apparent that five special days are too many—particularly when there is no necessity for such a high remainder. On the other hand, the 13-month year has been proposed. Here only one extra day appears. A very valid objection to this scheme, it would seem, is contained in the classical dictum of William of Occam: *entia non multiplicanda sunt praeter necessitatem.*\* When a 12-month system can be devised having the same advantages, why use more than 12 months? The inclusion of an additional month would have in any case the effect of deepening popular suspicion.

In the course of making sensible reforms for the existing evils, there are two broad courses to follow: either tear the whole fabric to pieces and build it anew, or take the materials ready to hand and fit them, excise them, rearrange them until the desired ends have been obtained. This more temperate solution of the difficulties is surely wiser than a complete revision of ideas. For the calendar is not a set of postulates on which an elaborate theory is to be imposed. Were this the case, complete simplification would have to be achieved at any cost to accepted notions. The calendar is rather a framework for men's actions, designed so that long spans of time may be conceived and related in terms of smaller units. As long as the relationships involved are harmonious and the strain on the human memory of preserving them is not too great, a revision employing the hallowed terms and concepts is completely satisfactory.

The 12-month World Calendar, wisely choosing the less radical course, provides an ideal solution. With a minimum of rearrangement it furnishes a perfect method for computing dates. In view of the slight degree of divergence from the current calendar, it is amazing how much difference it would be sure to make in so many lives and so many professions. It would indeed be a triumph of human sanity and foresightedness if the world-wide society of men could agree to adopt—as a whole and all at once—such a reasonable and beneficial measure.

\* In scientific thinking the fewer the materials the better.

## ADVER-TIMING

By JEROME S. SCHWARTZ

BESIDES a telephone in my office, a typewriter and several pieces of furniture, there are four instruments of measurement—a ruler, a thermometer, a clock and a calendar. The ruler, the thermometer and the clock, all in good working order, give accurate, inflexible and thoroughly dependable service. The fourth measuring device, and the one upon which the advertising business is most dependent—the calendar—is chronically in disrepair and does not serve so well.

To a great extent efficient, economical distribution, of which advertising is an important and expensive part, is a matter of timing. Goods are manufactured and distributed so that they will be on dealers' shelves at certain, definite times. The closer to these times that advertising, designed to move these goods into consumers' hands, appears, the greater the efficiency of the distribution function. Despite vagaries of the calendar which set holidays in the middle of the week and thus disrupt manufacturers' production schedules, despite similar dislocations in the production of advertising material and the media through which they appear, and despite additional dislocations in transportation, a certain synchronization is maintained, though, let it not be forgotten, with *economic waste*. Advancing and retarding production schedules of any kind, and the lags thus created, costs money and labor. Few factory laborers, typesetters, printers, truckmen and the many other kinds of workers involved in the distribution of goods work overtime or on Saturdays, Sundays and holidays without extra compensation.

But even the difficulty of synchronization indicated above, the cost of which goes directly onto the bill charged the consumer (since it is he who after all pays for the cost of distribution), is secondary compared to some of the other problems created by the wanderings of the present calendar. For instance, the advertising business, like all others, relies upon statistics. Figures for years—fiscal or calendar—are fairly reliable, but the advertising business moves faster than that. It needs and uses monthly and quarterly statistics—of income, of retail sales trends, of newspaper and magazine advertising lineage, of manufacturing output in definite localities, and even of rainfall and average temperature. But monthly and quarterly figures, because of the varying number of days and working days in months and quarter-years, are not dependable. Adjustments can be made, but adjustments are at best only guesswork. A certain amount of costly inefficiency results.

Advertising budgets for a given period are commonly based on the total advertising expenditure and sales of the same period in the previous year.

Here guesswork adjustments are a real danger, for they lead into a vicious cycle from which some calculations emerge so distantly related to the true state of affairs that they are even less than approximations—absolute distortions of reality. I recall an instance where a manufacturer of a branded line of women's shoes sat down with the representative of his advertising agency to decide how much he would spend for advertising in March 1940. They consulted their sales and advertising figures for that month of the previous year, 1939. These showed that sales in 1939 were \$1,000,000 and advertising expenditure, \$50,000. All things being equal, an expenditure of \$50,000 should again have brought sales of \$1,000,000 in 1940. But all things were *not* equal. The sale of \$1,000,000 worth of shoes in March 1939 was accomplished without the full force of the Easter stimulus, since Easter in 1939 fell on April 9. In 1940 it fell on March 24.

The manufacturer and the advertising executive looked at each other and scratched their heads. After considering many factors and covering sheets of paper with figures, the experience of March 1939 was finally blended with the experience of March 1938, which contained no Easter. To compensate for this, the experience of March 1937 and 1936, in which radically different economic and competitive conditions prevailed, was also included. The resultant advertising budget, naturally, was guesswork. This, combined with the fact that the Easter issues of the monthly women's magazines all came out in the third and fourth weeks of February—too early for effective advertising of the shoes—caused the manufacturer's advertising and sales campaign to fail. Furthermore, this so disrupted his entire program for the spring, that, instead of the worth-while profit his business usually showed for the first half of the year, it showed a serious loss.

Besides making comparisons difficult for both national and local advertisers, the varying date of Easter under the present calendar forces advertising into artificial channels. Through common acceptance the so-called "spring" selling season begins with the advent of Easter. Spring and Easter are synonymous. If, however, Easter occurs in March, as it does on an average of once in five years, "spring" advertising in monthly magazines must appear in the March issues, which come out in February. The important factor of *adver-timing* is destroyed and we are surprised to find advertised during the winter's stormiest days goods more suitable for sun-bathing than skiing. This lag exists not only in advertising, but also in the whole process of distribution. It is axiomatic that you can't sell iceboxes to Eskimos. Conversely, you can't—with economy, at least—sell Easter outfits to American women in midwinter—as in the month of February.

A fixed date for Easter—April 8—always falling in the second quarter, on a date sufficiently advanced to reduce the inefficiency of overlapping selling seasons and during a period in which favorable weather conditions

for the sale of spring wares may be expected, would not only be an aid to profits for the manufacturer and distributor, but also would result ultimately in savings to the consumer.

The "long" week-end, the observance of which has become so widespread in recent years, was early recognized as desirable by advertising men. It represented a new market. As more and more people assumed a dual existence—one of work for five days a week and play for two days a week—the use of many goods, such as sport-clothing and equipment, books, radios, automobiles and gasoline increased. Production, already too large, did not suffer; and consumption, given the stimulus of advertising, mounted. Now, under the stress of a huge rearmament program, it appears that the "long" week-end may again disappear. It is more imperative than ever that holidays, which impair production when they come in the middle of a week, be moved back to Monday. The "long" week-end and its attendant benefits will be preserved at least several times through the year.

I have indicated only a few of the most universal problems that a faulty calendar presents in advertising and distribution. Others involving the advertising, transporting, warehousing and selling of goods exist. With both consumers and sellers of merchandise clamoring for lower distribution costs, it is well that we all turn our attention to the new and perpetual World Calendar of 12 months and equal-quarters as one of the means of attaining them.

We have electric clocks which, as long as they continue to operate, give the correct time—infallibly. Many of us live out the day by these clocks, caring little that the calendar, the mechanism by which we live out the year, is a crotchety makeshift, destructive of efficiency in business and living.

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### OBITUARY NOTES

**D**R. OSCAR D. SKELTON, Under-Secretary of State for External Affairs of Canada, died in Ottawa on January 28. Sixty-two years old, he was for many years interested in calendar reform. He was a good friend of the Rational Calendar Association of Canada and his death, untimely as it was, will be regretted not only by the members of the Canadian Association, but also by advocates of the reform throughout the world.

**S**IR FRANCIS GOODENOUGH, C.B.E., British industrialist and director in many of England's greatest utilities, died in London, August 28, 1940, at the age of 68. He had been a strong advocate of calendar reform in Great Britain. Recently he said: "I regard the question of calendar reform as at least of equal importance to that of Daylight Saving, a reform which it took the catastrophe of a world war to bring about. It was feared by many people that that would cause even more inconvenience and misunderstanding than are feared in the case of calendar reform. Actual experience over many years has proved all those fears to be unfounded and today we are all blessed by the advantages gained by Daylight Saving, and many of us believe that a similar experience would be realized in the case of calendar reform."

# CHARLES NORDMANN OF PARIS

By C. DAVID STELLING

Director, Rational Calendar Association, London, England

CHARLES NORDMANN, the eminent astronomer whose death at the age of 59 took place in Paris on November 14, 1940, had been head of the Paris Observatory since 1920. He was a convinced calendar reformer who with something like prophetic insight declared 16 years ago that the fate of calendar reform would enable us to judge the League of Nations.

His fascinating book *The Tyranny of Time\** contains an important chapter devoted to "The Reform of the Calendar" in which under the guise of scientific impartiality he comes down emphatically in favor of the calendar which subsequently became known as The World Calendar.

"Much is expected," he wrote, "of the League of Nations for the reform of the calendar, and with good reason.

"I can hear the amateur diplomats of the Commercial Café facetiously explaining that the League of Nations has many other fish to fry, and that economic, political, historical, and geographical questions are enough to absorb its attention to such an extent that no time will be left for trivial questions of the almanac.

"To this I should respectfully reply that if the reform of the calendar is not a vital matter, that is an excellent reason for putting it at once at the head of the agenda. History and psychology agree in showing that the great problems, the problems of the highest importance, which affect all the interests and raise all the passions, are the most difficult of all to settle. Only the small questions can be tackled with any chance of a successful solution. A country or a man who only tackles the biggest things would lose time and fail to solve any, and this is as sure in science and in metaphysics as it is in politics. But let us return to the calendar, which is closely bound up with these considerations.

"The best proof of its appreciable importance is that Caesar himself, and afterwards one of the greatest popes [Gregory XIII], and after him the Convention, that other Caesar, deigned to devote their intelligence to its improvement. And when the English passed from the Julian to the Gregorian calendar and the date suddenly jumped from one quarter to the next, there was a riot among the people. Evil tongues say that some great ladies of the aristocracy had a hand in this, because the jump in the date affected their coquetry. I could give a thousand other proofs. But I shall confine myself to pointing out the defects of the present-day calen-

\**The Tyranny of Time* by Charles Nordmann, translated from the French by E. E. Fournier d'Albe. T. Fisher Unwin, London, 1925.

dar, hoping that they are of such slight importance that their correction will not hurt or harass anybody, nor put too many interests or customs on the defensive."

After discussing the principal calendars now in use, he goes on:

"But the defects mentioned below, to which we must turn now, are common to the Julian and Gregorian calendars. Thus every reform which would remedy them would benefit all Christendom.

"The first inconvenience of these calendars is one which is not an intrinsic one. It is that they are not universal. A number of inconveniences of international intercourse, difficulties of correspondence, and of commercial and financial exchange, result from this divergence, this multiplicity of calendars employed in the world. It is evident that the best way of persuading all States to adopt the same calendar would be to make the new calendar clearly superior to existing ones. This makes it desirable to examine the intrinsic faults of the Gregorian and Julian calendars in the first instance.

"One of the most serious of these inconveniences is the variation of the date of Easter and the other movable feasts."

He makes a powerful case for the fixing of Eastertide concluding with the words "We must now wait and see how much time it will require for this half-hearted resolution [adopted by the League of Nations in 1923] to become an accomplished fact." He then proceeds to summarize other defects of the calendar.

"Other defects of the present calendar are that the divisions of the year (months, quarters, half-years) are of unequal length, which causes continual inconvenience and uncertainty, loss of time and money, errors and injustices in the calculation of salaries, interest, insurance and pensions, rents and annuities, and current accounts. The first half-year contains two or three days less than the second. Some months have three days more than others. The number of days in the quarters is 90, 91, and 92 respectively. One fact suffices to show why from the simple banking point of view a chronological reform is indispensable: In most European countries the inequality of the months has led financial establishments to base calculations of current accounts and deposit accounts on a year of 12 months of 30 days each, a total of 360 days, while salaries are calculated on the actual number of days in the year. The fact that the months, quarters, and half-years do not contain an exact number of weeks produces a number of difficulties in all branches of business and accountancy, which are well known to all commercial people.

"Furthermore, the date of the month does not fall on the same weekday in successive years. Periodical public and private events, anniversaries, maturities, fairs and markets, and meetings do not fall on the same weekday for a given day, and vice versa. The 1st, 15th, and 30th

of a month is often a Sunday, to the great inconvenience of business men. The fixed feasts are often inconvenient, falling on Sunday or in the middle of the week. These drawbacks have led men, and particularly business men, to study the indispensable reform of these badly devised calendars, which cost immense sums and cause a thousand petty annoyances in the world."

He recalls the International Congress held at Liège in May, 1914, which recommended a new perpetual 12-month calendar of 364 dated days plus one day out of date in ordinary years and two days in leap year.

The primary drawback of the present calendar, he sagely observes, is that there are several of them, three in Europe alone, and he draws an analogy from the synchronization of clocks in the same country. "The important thing was, not that every town should keep a perfect time, but that all should keep the same time. The same applies to the calendar." With a broadmindedness unusual in a scientist, he argues that unification of the calendar is more important than scientific refinement of accuracy.

Turning to the principal reforms that had been proposed, he gives pride of place to the system which won a prize in the course of "an interesting competition recently organized by the Astronomical Society of France." The winner was a M. Armelin and his proposal was:

That the year consist of four equal quarters of 91 days each (two months of 30 and one of 31 days). To these, either one day or two supplementary days are added, accordingly as the year is an ordinary year or a leap year. These supplementary days are not dated. Thus, each quarter has 13 whole weeks, and in all the quarters the same dates always correspond to the same days of a given week in the quarter.

Here, of course, is the germ of The World Calendar and, as M. Nordmann went on to tell us, many variants of this system were put forward, differing in the order in which the 31-day months and 30-day months follow each other, in the day that opened the quarter, in the place given to the extra days. These matters in his view were far from being unimportant, but he thought there would be no difficulty in examining them and coming to an agreement. Summing up he found that while most of the characteristics of the present calendar are preserved, many drawbacks are remedied.

Referring to the 13-month proposal, which was known to him as the Delaporte calendar, he observed that it contravened old-established habits and questioned whether the public would admit a year of 13 months not only on superstitious grounds, but also because of the disorganization to commercial habits resulting from the suppression of convenient subdivisions like the quarter and half-year. That seemed to have been the view of the members of the Liège Congress, whose tendency was towards the adoption of a system more or less analogous to the Armelin calendar.

"This I point out," added M. Nordmann, "without taking sides in the matter . . . Let us not seek an exaggerated scientific rigor."

It is easy to see where his sympathies lay and he made an unanswerable case for practical reform.

The concluding paragraphs of his chapter on calendar reform are well worth quoting:

"If we may be allowed to look at the matter theoretically, we see that all the difficulties, all the imperfections of the calendars proceed from the fact that the month and the week are not commensurable in the frame of the year. In other words, the synodic revolutions of the moon round the earth and the earth round the sun have no common measure."

"One of the most singular errors of Plato, that divine dreamer, was to believe that natural things have only simple and perfect relations to each other. Thus, he sought to prove that there are only five perfect worlds because in geometry there are only five regular solid bodies."

"Unfortunately, the truth is far otherwise. The real and profound harmonies of the world are not subject to the paltry limits of our logic. As Fresnel said: 'Nature does not worry about analytical difficulties.'

"In any case, the fate of this question will enable us to judge the League of Nations.

"Some persons believe the League is the chrysalis whence a better future will emerge on the luminous wings of Justice and Liberty. Others hold it is but the last and fugitive reflection of the illusory clouds of the Past. But belief is not knowledge. The reform of the calendar will help us in choosing between the two points of view."

Nordmann, it is clear from his writings, was something more than a very distinguished astronomer. He had vision and imagination. In the passages we have quoted he placed his finger on the fatal weakness of the League of Nations. Its failure to tackle the small problems which it was called upon to solve was an index of its impotence to tackle the large ones. This Nordmann foresaw long before inherent feebleness of the League was suspected by the nations of the world.

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## MODERN INDUSTRIAL NEEDS

From the Plainfield (N. J.) *Courier-News*, December, 1940

TO THE average citizen, accustomed as he is to the familiar Gregorian year, the awkwardness of the irregular and changeable calendar is not always apparent. However, with the development of an industrial age, with closer intercommunication between nations, and with the wide demand among churchmen for a fixed Easter, it becomes increasingly clear that our inconvenient calendar brings real and unnecessary hardships.

The object of any calendar reform is to remove needless complications and to simplify, regularize and stabilize our time system, so that it will adequately meet our modern conditions. It is generally agreed that the most satisfactory and simple plan of revision is that known as The World Calendar.

Adoption of The World Calendar means that with only the slightest changes in the existing calendar, all the important faults and irregularities of the present system are corrected and a stable, ordered and balanced pattern of time-measurement is obtained.

# EASTER DATE PROBABILITIES

By TEMPLE RICE HOLLICROFT

*Professor of Mathematics, Wells College, Aurora, New York*

EASTER in 1940 was on March 24. The previous Easter on March 24 had been celebrated by George Washington. This was in 1799. Thus a period of 141 years elapsed between two successive occurrences of Easter on this date. Moreover, all other possible dates of Easter occurred, some several times, during this period. Easter on March 24 aroused additional interest because the preceding Sunday was both Palm Sunday and St. Patrick's Day, and there had long been a saying in Ireland to the effect that in the year when the palm and the shamrock are worn together, blood will flow and Ireland will be free.

This unusual date of Easter suggested certain questions. How often does Easter occur on any given date? Can the probability of a given date be found and, if so, how does it compare with the actual occurrence of that date?

In this paper, the approximate probabilities that given dates of Easter occur over long periods of time are computed. There are five dates whose probabilities of occurrence are considerably less than those of the others. The actual occurrences of these five dates during a period of six centuries in which we are now living are compared with their respective probabilities.

There are 35 possible dates for Easter, March 22 to April 25 inclusive. The date for a given year is determined by the epact and the dominical letter of that year. Since there are seven dominical letters and 30 epacts, assuming that the occurrences in both cases are equally likely over sufficiently long periods of time, the probability that any given epact and dominical letter will occur simultaneously in one year is  $\frac{1}{210} = .00476+$ . Several epacts, ranging from one to eight, may be associated with a given date, but only one dominical letter. Thus Easter occurs on March 22 for only one epact, on March 23 for either one of two epacts, on March 24 for any one of three epacts. The number of epacts associated with a given date increases by unity up to seven for March 28 and remains seven for 22 dates, March 28 to April 18 inclusive. The number of epacts associated with April 19 is eight, and this number decreases one for each succeeding date down to two for April 25, the latest possible date of Easter.

There is a slight variation from the above which affects the frequencies of the two dates, April 18 and April 25. Since a lunar month averages about 29.5 days and the epacts correspond to 30 days, for six months of the year, the 30 epacts must be associated with only 29 days. To allow for this, the epact 25 is called 25' when the golden number of the year exceeds

11, to indicate that 25 is the epact for six alternate months and 26 for the other six, which include April but not March. April 25 is the Easter date for the combination (25,C) and April 18 for (26,C). All other Easter dates, however, that correspond to the epact 25, correspond also to the epact 26, so April 25 is the only loser and April 18 the only gainer by this interpolation. Since 25 and 25' occur about equally often, the above is taken into account by associating April 25 with  $1\frac{1}{2}$  epacts and April 18 with  $7\frac{1}{2}$  epacts in 210 years.

The probabilities of occurrence of the various dates of Easter, assuming that all epacts and all dominical letters are equally likely to occur in a sufficiently long period, are as follows:

|                                     |       |
|-------------------------------------|-------|
| March 22                            | .0048 |
| April 25                            | .0071 |
| March 23                            | .0095 |
| March 24, April 24                  | .0143 |
| March 25, April 23                  | .0190 |
| March 26, April 22                  | .0238 |
| March 27, April 21                  | .0286 |
| March 28-April 17 inc. and April 20 | .0333 |
| April 18                            | .0357 |
| April 19                            | .0381 |

Thus March 22 is the least probable date and April 19 the most probable date of Easter. It is therefore very likely that over long periods the dates occur in approximately the above proportions and that March 22 is the possible date of Easter which occurs least often. This, however, is not the rarest date in the six centuries in which we are now living.

The five dates of Easter whose probabilities indicate that they occur least often will now be treated.

Consider the interval of 591 years from 1800 to 2390 inclusive. The probable number of occurrences ("probable" as defined previously) of each of the above five dates in this interval are:

|          |     |                    |     |
|----------|-----|--------------------|-----|
| March 22 | 2.8 | March 23           | 5.6 |
| April 25 | 4.2 | March 24, April 24 | 8.4 |

The actual numbers and dates of occurrences in this same interval are:

|          |   |                                      |
|----------|---|--------------------------------------|
| March 22 | 3 | (1818, 2285, 2353)                   |
| April 25 | 6 | (1886, 1943, 2038, 2190, 2258, 2326) |
| March 23 | 6 | (1845, 1913, 2008, 2160, 2228, 2380) |
| April 24 | 6 | (1859, 2011, 2095, 2163, 2231, 2383) |
| March 24 | 1 | (1940)                               |

During this 591-year interval, March 24 occurs only once as Easter, although its probability would indicate at least eight such occurrences. In each of the six centuries involved, the epacts associated with March 24 occur either ten or eleven times, but the dominical letter F is associated

with one of them only in 1940. Thus in a set of 61 epacts, covering 591 consecutive years, any one of which with F (one of the seven dominical letters) would determine March 24, only one such combination (21, F, 1940) occurs.

April 24, with the same probability as March 24, also occurs less often than its probable number. On the other hand, March 22, April 25 and March 23 all occur slightly more often than the probable number of occurrences.

It should be noted that 467 years will elapse between two successive occurrences of March 22 as Easter in 1818 and 2285. March 22, however, is only one-third as likely to occur as March 24.

The interval 1800-2390 was chosen because March 24 is the date of Easter in 1799 and 2391. In order to have a more representative distribution, one of the "ends" of this interval should be included. For example, the six centuries, from 1801 to 2400 inclusive, constitute an interval in which March 24 occurs twice (1940, 2391) and the others as above.

The most unusual feature is, however, that 1941 is the first year of a 450-year interval during which Easter will not fall on March 24, and that within that interval, Easter will occur twice on March 22, four times on March 23, five times on April 25, each much less likely to occur than March 24, and five times on April 24, whose probability is equal to that of March 24.

It is almost a certainty that Easter will never again occur on March 24, nor, indeed, on any of the five least probable dates except April 25 in 1943. Surely, in the near future, the best interests of every endeavor in any way affected by the calendar (and that is almost all inclusive) will prevail over tradition, and the probabilities of dates of Easter will become: April 8, one; all others, zero.

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### HISTORIC CALENDAR DIVISIONS

From *Transport Arbetaren*, organ of the Swedish Transport Workers Union,  
Stockholm, July, 1939

FORMERLY it was believed that the sun went around the earth; but later it was established that it was the earth that circled the sun in a revolution taking 365  $\frac{1}{4}$  days. Then people tried to divide the year on the basis of the number of months produced by the times that the moon circled the earth in a year. This gave 12 months, but it did not coincide with the length of the year, because lunar months are only 29.53 days long, and 12 of them amount to 354.36 days. It has been impossible to figure evenly the days in the month. In Egypt they divided the month into three periods of ten days each; the Hindus divided the months into two halves, the light and dark periods; the Chinese divided it into four weeks; and the Persians into six periods of five days each. The Jews have always had weeks of seven days. The Mayans of Mexico divided the year into 18 months of 20 days each.

# HOLIDAY CUSTOMS

*A Review by P. W. WILSON*

RED LETTER DAYS. *A Book by Elizabeth Hough Sechrist. With Illustrations by Guy Fry; 252 pages. Philadelphia: Macrae-Smith Company, 1940*

MISS SECHRIST is well qualified for the literary enterprise on which she has spent so many eager hours. At the Public Library of Bethlehem, Pennsylvania, she presided over the Children's Department, and the touch of her pen is electric with a youthful zest for a picturesque subject that she has made her own. We have had her *Little Book of Hallowe'en* and her *Christmas Everywhere*, which dealt respectively with one festival in the year, and she now tells of *Red Letter Days* scattered through the months from January to December. We have also a brief sketch of the evolution of the calendar, useful as a readable introduction to what follows, but hardly to be taken as a definitive account of that somewhat formidable affair. Some of the categorical statements suggest the wisdom of reservations.

This is one of the many books that delightfully express the inexhaustible superabundance of human interest, ancient as the dawn of history, modern as the latest headlines, which associates all of us, whoever we may be and wherever we may have our habitation, rich and poor, learned and unlearned, friend and foe, with the tranquil and rhythmic measurement of time. There will never be an end to the queer details, the strange customs, the age-long traditions, the curiously persistent superstitions, the sacred and civil ceremonials that adorn the calendrical year. Even the seasoned enthusiast for the lore of the Almanac will find what is new to him and much also of which he will be glad to be reminded.

Miss Sechrist's mood of enjoyment harmonizes with the laughter that rings forth during the festivals when the everlasting child in man breaks asunder the shackles of routine and revels in priceless hours of freedom. Turn these pages, glance at the pen drawings by Mr. Guy Fry, and you catch the fragrance of the girlish gaiety that leaped from the liberated heart of Pippa when she awoke to the rapture of that one great day in her drab and dowdy year when she ceased to be a drudge in a mill and could call her soul her own. The Holy Day was her holiday, her happy day, when she could dance her way through streets whatever evil they concealed, singing, "God's in his heaven, all's right with the world."

It is all very well for a cultured scholar from Oxford like Keble, with a comfortable income, a pleasant library and occupations largely of his own choosing, to write complacently of the daily round, the common task furnishing all we need to ask as a pathway for the pursuit of well-being. But Keble would have been inspired to a very different hymn if he had had to

make his living by the deadening drudgery that little Pippa had to endure, morning, noon and night, one week after another. For that toiling child, a day off work was a glimpse of heaven.

The title of this book—*Red Letter Days*—suggests a selection from the numerous feasts and fasts of the year observed throughout the world. The selection is fairly to be described as cosmopolitan, and it indicates, therefore, a common instinct for recreation pervading all mankind. But emphasis is laid, as might have been expected, on those occasions that are best known in the United States. And not a little of the interest in the book lies in the fact that these American anniversaries are seen in their correspondence to festivals that date from periods far anterior to the discovery of the Americas. With all of its talk about isolation, this country has not been able to escape from observances that are deeply embedded in the mentality of the human race.

Since the beginning of recorded history, man has celebrated the seasons as they follow one another throughout the solar year. Superficial commentators have dismissed these celebrations as pagan and have talked in a superior tone about heathen rites. This book shows that expressions of wondering reverence for great cosmic phenomena as they recur, however primitive they may be, are to be included in the universal worship of God by man. Japan welcomes her cherry blossoms. The United States has her Arbor Day, her Labor Day, her Thanksgiving, indicating a communion of ourselves with the rejoicings of our remotest ancestors.

In the ancient book of *Ecclesiasticus* we are exhorted to praise famous men, and 26 centuries have added the weight of corroboration to that great exhortation. Saints' days are thus in accord with a veneration by man for man which is essential to his dignity. Miss Sechrist cannot mention all the saints in the calendar, but she tells us of Saint Patrick, in whose honor there are such impressive parades in the English-speaking world. Here again an eternal instinct within man persists through the centuries. For as some of the saints of the past recede into the memory of omniscience, their successors emerge and continue the majestic dynasty of human greatness. We have the birthdays of Washington and Lincoln, Columbus Day and other similar occasions in many countries which perpetuate the hero-worship which Thomas Carlyle included among the uplifting exercises of the human spirit. Nor does modern man abandon his claim to a future life. The mysticism we breathe on All Saints' and All Souls' Days is manifest on Memorial and Armistice Days. The dead still live.

There is a tendency to distinguish between the sacred and the secular in the Almanac, and there is, of course, a very real distinction to be drawn between certain ecclesiastical observances and civil occasions. Yet the distinction is bridged by a kind of rainbow correspondence. For instance, the Hebrew feast of the Passover signifies deliverance of man from the

tyranny of his fellow man. This feast was in full progress when the Crucifixion took place and it is still a movable feast like Easter.

This sense of emancipation is by no means confined to the Jewish memory. The United States has her Independence Day, the Fourth of July. Other nations have also their own Independence Days, each with a meaning of its own. There is thus a comradeship between what we call the sacred and what we call the secular which demonstrates that life has to be seen, not as a duality, but as one coherent whole.

It would be possible to show that the Red Letter Days described by Miss Sechrist are carefully preserved within the structure of The World Calendar. Nothing of what this book contains is lost by that far-reaching achievement in calendar reform. We may also draw the conclusion that the simple and human oddities in celebrating, let us say, Hallowe'en—these ebullitions of youthful mischief in a community that, like Peter Pan, never quite grows up, these tender universalities which add Mother's Day to the many feasts in honor of the Madonna—are the answer of man as a family man to the hatreds and cruelties which rend his home asunder. The fasts and feasts in the calendar have never been reasons for war. They have recurred as silent protests against the folly that substitutes death and destruction for song and dance. Holy days cannot be days of hatred. They are days, rather, of hospitality when enemies can meet in that fresh air where the fumes of poison gas are dissipated and fireworks are the only firearms. Within her sphere of study and influence, Miss Sechrist may be enrolled among the multitude of those who are working for a better world.

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#### ADDITIONAL OBITUARY NOTES

**F**RANK PARKER STOCKBRIDGE, veteran American journalist, died December 7, 1940, at Stockbridge, Massachusetts. Widely read, no man in America had a wider range of information—on politics, science, literature, people, and virtually everything under the sun. He joined the movement for calendar reform early in 1931 and then stated his contribution, for which The World Calendar Association was grateful over many years—"I will be able to give occasional publicity to this subject, on which I have in the past written several articles myself."

Shortly before his death, his column, syndicated throughout the country, said: "To folk who put sentiment and tradition above reason and logic there is something almost sacrilegious in tinkering with the calendar. But it's been done not once but many times. There isn't any reason why it shouldn't be changed again."

**D**R. RAYMOND PEARL, internationally known biologist, died in Baltimore at the age of 61. A member of The World Calendar Association, he became interested through the activities on the subject by the American Statistical Association.

Other deaths among the membership of The World Calendar Association include *The Honorable Judge George W. Green*, Medicine Hat, Alberta, Canada; *Rufus Jarnagin*, Educator, Buffalo; *Prof. J. E. Butturff*, Bucyrus, Ohio; *J. A. Welton*, Plumber, Dover, Ohio; *John W. Harradine*, Teacher, Hamlin, N. Y.; *H. G. Ramsperger*, Statistician, Leonia, N. J.; *August H. Warnecke*, Merchant, Berkeley, Cal.

# CURRENT PRESS COMMENT

## Problems in Common

*Salisbury (N. C.) Post*

There is the inspiration of courage in the calendar reform leaders' energetic labors to push through their plans in spite of the chaotic conditions of world politics and international enmities. The group is setting us all a fine example in preparing for peace in time of war, giving evidence of its faith that existing misfortunes in the relationships of nations will eventually be submerged in the impulses toward international amity and cooperation.

Indicative of this optimism and this faith in the valuable importance of its proposals is the Association's current campaign to have the United States call an international conference on calendar reform in the near future, bidding even the bitterest military enemy countries to co-operate in sending delegates to sit about a common council table and review the possibilities of ironing the kinks out of the present calendar system by mutual consent and active cooperation.

Such a meeting illustrative of the problems which all nations share in common entirely outside of the spheres of wars and political power would have in itself some considerable significance in these days; it might even point the way to the possible effectiveness of similar tactics in other spheres.

## Perpetual Timepiece

*Salina (Kan.) Journal*

Maybe the calendar is the cause of the world's trouble. It has been out of balance, and no one has done anything about it for hundreds of years.

Now the nations of the globe, and most of the people who inhabit it, have gotten themselves into a terrible mess, and nothing that has been proposed so far seems to have been of much help. So why not try the plan proposed by The World Calendar Association.

This calendar will last as long as you live. So get in the band-wagon and start demanding calendar reform. It's the first

reform you have been offered that saves time and money—so grab it quick. Such a chance may never come again.

## Indian Calendar

*Cambridge (Md.) Banner*

A quaint system of calendar-making, similar to that employed by the Bible Patriarchs, is practiced by the Sarcee Indians of the Indian reserve outside Calgary, Alberta. It is the medicine man's responsibility to transfer each morning a twig from a bundle representing the unused part of the month to another bundle that represents the used part. Altogether, he has five bundles, each containing 30 twigs.

The third bundle, signifying June in summer and December in winter, is always kept in two equal parts. The divisions denote midsummer's and midwinter's day. In winter the twigs are kept with their points downwards; in summer the position is reversed. Having only five bundles to tally off six months each half-year, the medicine man always uses the fifth bundle twice. The picturesque names and emblems by which the Indians recognize the months follow: April, Frog Moon, Bull Frog's Croak; May, Sprouting of Green Leaves and Grass; June, Egg (Duck's) Moon; July, Moulting (Duck's) Moon; August, Flying (Duck's) Moon; September, Running of the Deer; October, Fall of Leaves Moon; November, Misty Moon; December, Clear Frosty Moon; January, Great Moon; February, Eagle Moon, (eagles soar); March, Goose Moon, (geese come).

## Fixed Easter

*Liverpool (England) Daily Post*

There is throughout the Christian world a large measure of agreement about the desirability of fixing the date for Easter, and it is very likely that Parliamentary action would be decisive in the matter. As for the practical arguments for a change, involving as they do business, education, and law and, of course, the bank holiday, they are irresistible.

# EXCERPTS AND REVIEWS

## *The Wide Horizon*

By HERBERT B. NICHOLS

Natural Science Editor, *The Christian Science Monitor*, Boston

I WAS quite thankful last spring to the merchants and tradespeople who presented me with calendars at the year-end, for the calendars were very good to me. They decreed such an early Easter my wife decided she'd do without a new spring outfit. Perhaps the stores would have preferred a late Easter. Perhaps they would like a late Easter every year. Maybe everyone would. But just as long as we go on year after year with an 18th Century calendar, our culture and modern streamlined business must bow before custom and inconvenience.

What's wrong with it? Well, for one thing, who ever suggested that Easter should swing across the calendar through an arc of five weeks, following the formula, "the Sunday after the first full moon after the Vernal Equinox"? Not only must merchants study the calendar and the long-range weather prediction before ordering or not ordering stock for an enthusiastic or frozen Easter parade (anywhere from March 22 to April 25), but business men of all fields consciously or unconsciously pay for calendar vagaries.

It was good to have a vacillating Easter in the days when pilgrimages to the Holy Land on foot were popular, and weary travelers needed the light of a full moon to travel by, but the need of 325 A.D. is not that of 1941. If our antique calendar were merely a nuisance, it might be tolerated, but the management and control of modern business, science, education, commerce, agriculture and labor is accomplished on the basis of statistical data. The additional work required to juggle figures around to fit calendar inequalities can be translated directly into dollars.

It makes as big a difference in some concerns whether there are four or five pay-days in a month, as it does in most families. In 1936, February had one of those fifth pay-days, rare it's true for such a runt month, but it spelled the last straw for at least one concern.

Other divisions of the year suffer likewise. Dividing the year of 365 days, 5 hours, 48 minutes and 46 seconds into halves, (according to the calendar) we have in the first half either 181 or 182 days, and in the last half 184. Divide it into quarters for statistical reasons and there are from 90 to 92 days in each. The year never begins on the same weekday twice in succession. Month dates and days of the week never correspond and months do not necessarily have the same number of Sundays, Fridays or Saturdays. School vacations and summer vacation schedules are never the same.

Contrary to popular belief the calendar isn't a static institution. Eduard Meyer in 1904 advanced the year 4231 B.C. as the probable date of the calendar's birth, but according to Director Emeritus H. E. Winlock of the Metropolitan Museum of Art, even ancient Egypt's calendar couldn't have emerged suddenly but bloomed and prospered from very primitive beginnings. Probably it depended initially upon the cycle of the Nile's annual rise and fall. At first it was a division of the year into three seasons, flood, spring and low water or harvest, according to Dr. Winlock. The 4231 B.C. date was advanced because that was the year the flood came at the same time the sun rose far enough to the east of Sirius, the Dog Star, for that body to be seen above the horizon just before sunrise.

Of all the plans advocated for a 20th-Century change in the calendar, perhaps that of The World Calendar Association is best, for it would accurately adjust many of the present difficulties with the least radical changes. Sponsored by natural scientists and business men alike, it calls for a perpetual calendar. Furthermore, one can keep track of the days of the week upon which important dates fall.

## *New Year's Card*

By ADELAIDE HAWLEY

Over Columbia Broadcasting System's Woman's Page of the Air, January 1, 1941

I RECEIVED a rather unusual New Year's card the other day from Miss Elisabeth Achelis, who is President of The

World Calendar Association. She quotes the famous words from Shakespeare's *Hamlet*: "The time is out of joint; O cursed spite, That ever I was born to set it right!" and then she says she thinks we ought to paraphrase Mr. Shakespeare and make the couplet read: "Our time is out of joint; but O delight, That we are born this age to set it right!"

Miss Achelis has spent a number of years and a great deal of serious effort to stabilize the calendar and many prominent people and a number of countries endorse her World Calendar. She decided, when she first got the idea, that it was just too silly—this business of having to say "thirty days hath September, etc." whenever the number of days in a given month was in doubt. Holidays come along any old time—nobody ever knows when without looking it up—so Miss Achelis advocates a balanced calendar, which is only slightly changed from our present one, but so much more sensible.

Lots of people shake their heads over proposals like this, and say something about what was good enough for my father is good enough for me, and so on. Well, did you know that we didn't have Standard Time for our clocks and watches in this country until 1884? It was adopted still later by other countries. Men used to spend half the time going around comparing the time with somebody else to find out, if possible, what time it really was.

## New Year Celebrations

By DR. ROBERT DONATH

In *Irish Independent*, Dublin, December 1938

FROM time immemorial noisy amusements have constituted a feature of New Year celebrations. Especially in the countries where taking leave of the old and welcoming the new year are traditionally celebrated on New Year's Eve—in the night of St. Sylvester's Day—carnival atmosphere prevails. In Vienna, for instance, on Sylvester, people go to the theaters; many restaurants arrange *Silvesterfeicru*.

The program consists of comic plays, humorous recitals and merry songs. An exquisite supper with wine supports the efforts of the actors to create the desired atmosphere. The climax is reached when the clock of St. Stephen's begins to boom

the midnight hour; then lights are turned off: the old year goes. With the 12th stroke the lights flare up again, all present wish in unison a happy New Year (*Prosit Neujahr*): the New Year is in.

The custom of *letting in the New Year* is also observed in England. The first visitor of the new year is called *first-foot* or *lucky bird*. Greatest importance is attached to his appearance. Generally a dark-complexioned man or boy is demanded; besides, the *first-foot* must not be flat-footed, nor squint-eyed, nor must his eyebrows meet. He comes in at the hall door and leaves at the back door.

Coming in he has to bring a piece of coal or wood, bread and whiskey. Silence receives him while he enters and performs the ceremonies, putting the coal on the fire, bread and whiskey on the table. Then he wishes three times a happy New Year and is treated with cake and wine.

In France, the great family day is not Christmas but New Year, which is called *Le Jour de l'an* (the day of the year) or *Le Jour d'Etrennes*; the latter word is derived from the Latin *strenae*, meaning *presents*. New Year in France is celebrated by giving presents. This custom was introduced by the Romans when they conquered Gaul.

## Courageous Leadership

By ADELAIDE KERR

In *Detroit (Mich.) News*, September 1940

LOTS of women have flouted time, but Elisabeth Achelis is trying to change it. She wants to revise the calendar.

"The constant change of the present calendar brings confusion," she says. "You don't change clocks and tape measures from year to year. Why shouldn't there be a changeless calendar?"

"The World Calendar would make exact comparison possible. It would aid the farmer in planting, fix the beginning of the school year and make possible the regular arrangement and enjoyment of holidays. But one of the things I like best about it is the fact that, in adopting it, nations of the world would be in agreement on one thing and would universally observe two World Holidays. One such agreement might lead to another, and thus the calendar might be a step along the road toward peace."

## FROM THE MAIL BAG

I am very glad that they are showing such interest in calendar reform in India, and if it is linked with the general wish for peace among the nations of the world, it should gain adherence everywhere.—Lord Desborough, Hertford, England.

My classes consist of over 90 per cent of Orientals and I am happy to report that each one of them is absorbingly interested in The World Calendar.—M. C. Le Vine, Head of Accounting Dept., Phillips Commercial School, Honolulu.

Your endeavors, I trust, will eventuate in full success.—Bishop J. L. Nuelson, Geneva.

I became calendar-conscious when in my childhood I read that famous book of Jules Verne, *Around the World in Eighty Days*. The fact that Mr. Fogg gained one day in traveling round the world from west to east was, as far as I am able to remember, the first reason for my reflecting on the laws of the calendar.—B. Traneus, Forenade Landsortstidningar, Stockholm.

This year I hope we will see our calendar creating more interest than ever and well on its way to ultimate world-wide adoption.—Edward F. Flynn, St. Paul.

I first came in contact with this movement while in Geneva and have since been earnestly wishing for its universal adoption.—Ken Sato, *Osaka Mainichi*.

May the strength of the Episcopal Church be thrown behind this movement for calendar reform.—The Rt. Rev. Stephen E. Keeler, D.D., Bishop Coadjutor of the Diocese of Minnesota.

I am very glad indeed that there is a vigorous movement for calendar reform. It would be a great boon to schools and universities and also to business organizations and to all people who appreciate holidays.—Dr. W. Hamilton Fyfe, Queen's University, Kingston, Ontario.

All Mayan science and the glyphs depend on the calendar and Astronomy, and therefore this science is of great importance to your Association, the same as your work is of great use to us.—Dr. E. P. Dieseldorf, Coban, Guatemala.

Calendar reform is necessary.—H. E. Victor M. Rendon, Diplomat, Guayaquil.

In setting forth the advantages of The World Calendar, there is one point which I think might have greater emphasis. Thirteen is a very inconvenient factor to have in any problem, yet it seems necessary in any calendar. The World Calendar conceals it where it is not annoying and scarcely noticed; that is, *13 weeks in a quarter*. The 13-month calendar presents this troublesome factor in the most prominent and annoying way possible.—Henry Paul Busch, Philadelphia.

I am heartily in favor of The World Calendar as contrasted with the 13-month calendar.—E. B. Patton, Dir., Div. of Stat. and Infor., Dept. of Labor, New York.

The World Calendar is a vast improvement over the present one.—H. Chen, Shanghai College of Law.

I am confident that the general acceptance of this change in the calendar, affecting a wide range of interests, political, financial, social and international, would exert a definitely stabilizing influence, so sadly needed in the world of today.—Lt.-Col. W. A. Aiken, D. D., Chaplain, American Legion, New York.

We are heartily in accord with any individual or group of individuals who are enterprising enough to advocate the change that business should insist upon in our ridiculous calendar arrangement. You have excellent arguments for your style on account of the division into quarters. We feel that all newspapers and magazines should cooperate whole-heartedly in some kind of revision. We have been advocating a change in our small way for about 10 years.—George C. Handy, Publisher, *The Ypsilanti Daily Press*, Mich.

The proposed change will stabilize the so-called college terms in schools so that, actually, all terms may be scheduled to begin at the same time, and may also be concluded at the same time.—Prof. J. F. L. Raschen, Univ. of Pittsburgh.

All that which tends to simplify matters, and this scheme will, no doubt, convey to this result, should be supported by everyone, without hesitation.—George Frank Davis, Asuncion, Paraguay.

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 Charles E. Terry, Teacher, Winter Park, Fla.  
 G. A. Teske, Clergyman, Larimer, Pa.  
 Sister M. Terese, Teacher, Laurium, Mich.  
 L. Theurer, Postal Official, Danbury, Conn.  
 D. H. Thielking, Student, St. Lawrence Univ.  
 Rev. A. C. Thompson, Tamaqua, Pa.

C. Foster Thompson, Merchant, Sioux City  
 V. Valcovici, Educator, Bucharest  
 Octavio A. Vallarino, Senator, Panama City  
 Prof. Louis A. van Royen, Hassenaar, Holland  
 Forrest E. Wachs, Musician, Great Falls, Mont.  
 Miss M. Weaver, Edu., Winston-Salem, N. C.  
 Clarence J. Weber, Merchant, Buffalo  
 O. L. Weber, Manufacturer, Stevens Point, Wis.  
 Prof. C. K. Webster, London Sch. of Economics  
 Prof. J. H. M. Wedderburn, Princeton Univ.  
 E. R. Weidlein, Dir. Mellon Inst., Pittsburgh  
 Mrs. Leslie Weil, Goldsboro, N. C.  
 Mrs. Martin M. Weitz, Teacher, Kenosha, Wis.  
 F. A. Welch, Editor, Des Moines  
 Y. W. Wong, Publisher, Hongkong  
 H. A. Wright, Clerk, Columbus, O.  
 Prof. Quincy Wright, University of Chicago  
 Mrs. Nell S. Young, Clubwoman, Chicago  
 Dr. P. R. Young, Educator, So. Cal. Univ.  
 Dr. C. E. ZoBell, Scientist, La Jolla, Cal.

## INTERNATIONAL ORGANIZATIONS FOR REFORM OF THE CALENDAR

**ARGENTINA:** Comité Argentino del Calendario Mundial, Vice Admiral José Guisalosa, Chairman, Ministerio de Marina, Buenos Aires.

**AUSTRALIA:** Committee on Calendar Reform of the Australian and New Zealand Association for the Advancement of Science, C. W. Allen, Secy., Solar Observatory, Canberra.

**BELGIUM:** Belgian National Committee on Calendar Reform, Professor M. Dehalu, President, l'Université de Liège, Liège.

**BOLIVIA:** Comité Boliviano del Calendario Mundial, Don Moises Santivanez, Chairman, Biblioteca Nacional, Sucre.

**BRAZIL:** Comité Brasileiro do Calendario Mundial, Captain Radler de Aquino, Chairman, Rua Raul Pompeia No. 133, Rio de Janeiro.

**CANADA:** Rational Calendar Association, Lt.-Col. J. Murray Muir, Secy., 82 Jane St., Toronto 5.

**CHILE:** Comité Chileno del Calendario Mundial, Prof. Alberto Cumming, Chairman, Calle Manuel Rodriguez, Santiago.

**CHINA:** Chinese Association for the Study of Calendar Reform, Dr. Ch'ing-Sung Yü, Director, National Institute of Astronomy, Kunming, Yunnan.

**COLOMBIA:** Comité Colombiano del Calendario Mundial, Dr. Eduardo Posada, Chairman, Consulado General de Honduras, Apartado 42, Bogota.

**COSTA RICA:** Comité Costarricense del Calendario Mundial (Igualmente de Guatemala, Honduras, El Salvador y Nicaragua), Don Teodoro Picado, Chairman, San Jose.

**CUBA:** Comité Cubano del Calendario Mundial, R. P. Mariano Gutierrez Lanza, Chairman, Belén Observatory, Havana.

**DOMINICAN REPUBLIC:** Comité Dominicano del Calendario Mundial, Barney N. Morgan, Chairman, Box 727, Ciudad Trujillo.

**ECUADOR:** Comité Ecuatoriano del Calendario Mundial, Dr. Rafael H. Elizalde, Chairman, Calle Cienfuegos 158, Santiago, Chile.

**ENGLAND:** Rational Calendar Association, C. David Stelling, Director, 38, Parliament Street, London.

**FRANCE:** Comité National pour la Reforme du Calendrier, Senateur Justin Godart, President; Paul-Louis Hervier, Secy., 5, Rue Bernoulli, Paris.

**GERMANY:** Deutscher Ausschuss für Kalenderreform, Dr. Grosse, Geschäftsführer, Neue Wilhelmstr. 9/11, Berlin N. W. 7.—

Der Weltbund für Kalenderreform, Dr. Rudolph Blochmann, Secy., 24 Lornsenstrasse, Kiel.

**GREECE:** Greek National Committee on Calendar Reform, Prof. S. Plakidis, Secy., Observatory of University of Athens.

**HUNGARY:** Hungarian Committee for Study of Calendar Reform, Dr. Paul Vajda, Secy., 9 Eotos Utca, Budapest.

**IRELAND:** Committee for Calendar Reform, E. K. Eason, Secy., 80, Mid. Abbey St., Dublin.

**ITALY:** Italian National Committee on Calendar Reform, Prof. Amedeo Giannini, Secy., Via del Seminario, 113, Rome.

**MEXICO:** Comité Mexicano del Calendario Mundial, Dr. Joaquin Gallo, Chairman, Observatorio Astronomico Nacional, Tacubaya, D. F.

**PANAMA:** Comité Panameno del Calendario Mundial, Juan Rivera Reyes, Chairman, Panama City, Panama.

**PARAGUAY:** Comité Paraguayan del Calendario Mundial, H. E. Senor Ministro Coronel don Luis Irrazabal, Chairman, Calle Moneda 1938, Santiago, Chile.

**PERU:** Comité Peruano del Calendario Mundial, Don Luis Montero y Tirado, Chairman, Casilla 220, Lima.

**POLAND:** Polish Committee for Calendar Reform, Albin Jakiel, Chairman, Krasinski 21 m. 27, Warsaw.

**SPAIN:** Spanish Calendar Reform Committee, Rev. Father Antonio Romana, S.J., Chairman, Observatorio del Ebro, Tortosa.

**SWITZERLAND:** Swiss Committee on Calendar Reform, Prof. Emile Marchand, Secy., Mythenstrasse 2, Zurich 2.—Comité International de Coopération de l'Association Universelle du Calendrier, M. Raymond Mage, Secrétaire Général, Palais Wilson, Geneva.

**TURKEY:** Committee on Calendar Reform, Dr. M. I. Dereoglu, Secy., P. O. Box 1121, Hanhaym Han No. 1, Istanbul.

**URUGUAY:** Comité Uruguayo del Calendario Mundial, Prof. Alberto Reyes Thevenet, Chairman, Liceo de Enseñanza Secundaria Hector Miranda, Calle Sierra 2268, Montevideo.

**VENEZUELA:** Comité Venezolano del Calendario Mundial, Don Edgar J. Anzola, Chairman, Apartado de Correos No. 207, Caracas.

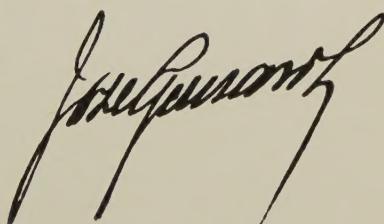
**YUGOSLAVIA:** Yugoslavian Committee on Calendar Reform, Georges Curcin, Chairman, Poenkareova 25—III, Belgrade.

## STATEMENT BY VICE ADMIRAL JOSE GUIASOLA

*Chief of Staff of the Argentine Navy, on the occasion  
of an informal luncheon at the Rainbow Room, Rocke-  
teller Center, on June 5, tendered the Admiral by the  
American Advisory Committee of The World Calendar  
Association*

In my capacity as Chairman of the Argentine Committee for The World Calendar, I would like to state my belief that it would be a splendid gesture of hemispheric solidarity, in which we are all so interested at this time, if the countries of North, Central and South America were to show the way to the rest of the world by adopting The World Calendar of 12 months and equal quarters. Committees, such as the one of which I have the honor to be Chairman, have been formed throughout the countries of South America as well as in Mexico, Central America and Canada. The World Calendar Association itself has headquarters here in New York City.

By a few simple changes, The World Calendar brings order, stability and balance into the measurement of the year and its adoption would be a fine token that science and culture continue to advance despite wars and similar upsets. May I recommend to the attention of the people of the United States that they study The World Calendar and accelerate the world-wide movement for its adoption?

A large, handwritten signature in black ink, appearing to read "José Guisasola".



VICE ADMIRAL JOSÉ GUÍASOLA, SEÑORA DE GUÍASOLA AND MISS ELISABETH ACHELLIS